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EIGHTEENTH

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ANNUAL REPORT

OF THE

Boston Protective Department,

FROM MARCH 1, 1891, TO MARCH 1, 1892.

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BOSTON:

L. BARTA & CO., PRINTERS,

The Barta Press,

148 HIGH STREET, BOSTON,

1892.

3439





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(26049)

May 21. 1892.

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## OFFICERS.

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*President :*

GEORGE P. FIELD.

*Vice-President :*

THOMAS F. TEMPLE.

*Secretary- Treasurer :*

EDWARD SPAULDING.

*Directors :*

TO SERVE UNTIL MARCH, 1892.

CHAS. E. GUILD.

N. FOSTER, JR.

EDWARD D. BLAKE.

TO SERVE UNTIL MARCH, 1893.

THOMAS F. TEMPLE.

A. M. BULLARD.

JAMES BRUERTON.

TO SERVE UNTIL MARCH, 1894.

GEORGE P. FIELD.

FRANCIS H. STEVENS.

GEORGE H. BALCH.



## REPORT OF THE DIRECTORS.

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BOSTON, MARCH 1, 1892.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT:—

The Directors submit herewith the 18th Annual Report of the Department.

Preparations for the establishment of an auxiliary force, approved by the Corporation at the last Annual Meeting, were commenced early in the year, but the necessary changes in the House, and delays in building the extra wagons, have prevented the Board from putting the extra wagon in commission until the close of the year. We now have to report that all the changes necessary to accommodating the two Companies have been made in House No. 1, and that during the night there is in that House a reserve wagon, ready to respond to alarms in their district. It was found that House No. 2 was entirely too small to accommodate the two wagons, and as it was in other points inadequate for the wants of the Department, the Company will vacate their present quarters at the expiration of the lease, June 30th. The Board have secured a lease of the new house being built for them on Appleton Street, which will not only more comfortably accommodate the Company, but will furnish additional storage room, which has been much needed in the past.

The reports of the Superintendent, Secretary, and Treasurer, and Medical Officer, are submitted herewith, with usual statistical tables, and your attention is invited thereto.

The Board recommend, *first*, that the active duties of the Department be continued for another year; and *second*, that the Directors be authorized to expend for the maintenance of the Department the coming year, a sum not exceeding \$55,000.

For the Directors,

GEORGE P. FIELD,

*President.*



## TREASURER'S

### RECEIPTS AND EXPENDITURES OF THE BOSTON

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1891.		
March.	By Cash on hand, Balance . . . . .	\$13,397.10
	Balance of Assessments of January 1, 1891, col- lected . . . . .	8,886.44
	Six Months' Assessments to July 1, 1891 . . . . .	23,661.72
	Six Months' Assessments to January 1, 1892 . . . . .	23,440.11
	Interest, Eliot National Bank . . . . .	314.09
	Cash received for Watch Duty . . . . .	553.08
	Cash received for Sale of Horses. . . . .	412.50
	Cash received for Sale of Old Material . . . . .	39.00
	Cash received for Loan of Covers . . . . .	8.00
		<hr/>
		\$70,712.04

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#### NET RUNNING EXPENSES.

March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	28,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,893.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	41,681.42
March, 1891, to March, 1892 . . . . .	44,144.12

## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1892.

To Cash paid:—

Pay-roll . . . . .	\$29,509.84
Rent and Taxes of Houses . . . . .	2,864.60
Hay and Grain . . . . .	820.84
Wagon and Harness Repairs . . . . .	592.34
Horse Shoeing . . . . .	272.04
Fuel . . . . .	248.25
Gas . . . . .	414.18
Washing . . . . .	228.76
Supplies . . . . .	355.07
New England Telephone and Telegraph Co. . . . .	200.45
Automatic Fire Alarm . . . . .	167.97
Water Tax . . . . .	60.50
Repairs and Furnishing of Houses (ordinary) . . . . .	248.54
Purchase and Hire of Horses . . . . .	1,089.40
Veterinary Services . . . . .	50.83
Sundries . . . . .	208.39
Directors' Meetings . . . . .	103.00
Secretary, Treasurer, and Boy . . . . .	1,731.67
Medical Officer and Incidental Medical Services . . . . .	513.00
Printing and Stationery . . . . .	1,800.08
Advertising Annual Meeting . . . . .	42.13
Auditors' Fees . . . . .	50.00
Surety Bond . . . . .	75.00
New Badges . . . . .	22.50
Altering House, No. 1, to Accommodate Auxiliary Men . . . . .	757.19
Furnishing House, No. 1, to Accommodate Auxiliary Men . . . . .	622.22
New Wagon, No. 3 . . . . .	775.00
New Wagon, No. 3 Equipment . . . . .	142.75
New Wagon, No. 2 . . . . .	775.00
New Wagon, No. 2, Partial Equipment . . . . .	30.00
Wagon, No. 4 (No. 2 rebuilt) . . . . .	450.00
Wagon, No. 4 Equipment . . . . .	93.00
	<hr/>
	\$45,314.54
Paid for watch duty . . . . .	156.25
Balance due for assessment of January 1, 1892 . . . . .	10,923.76
Balance, cash on hand . . . . .	14,317.49
	<hr/>
	\$70,712.04

E. & O. E.

Boston, March 11, 1892.

EDWARD SPAULDING, *Treasurer.*

Audited and found correct to date.

P. E. EDDY,  
FREDERICK W. PORTER. } *Auditing Committee.*

## SUPERINTENDENT'S REPORT.

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HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT., No. 5 HAMILTON ST. }

Boston, March 1, 1892.

TO THE PRESIDENT AND DIRECTORS :

*Gentlemen:* I herewith submit the Eighteenth Annual Report of operations of the Department, for year ending March 1, 1892.

The several tables of statistics heretofore submitted have been extended to include the period above mentioned. (See Secretary's Report).

### ORGANIZATION.

The organization of the Department continues the same as last year, with the exception of being reinforced by ten (10) Auxiliary Men for Company No. 1.

### DIED, DISCHARGED, APPOINTMENTS, AND PROMOTIONS.

**Died.**—Joseph E. Thayer, suffocated at fire No. 148 Border St. (East Boston District), December 31, 1891.

**DISHONORABLY DISCHARGED.**—First Grade Private F. O. Hinckley, Dec. 3, 1891, and Third Grade Private C. A. Floyd, Dec. 7, 1891; both for neglect of duty.

**DISCHARGED.**—Fourth Grade Private John McInnes, July 1, 1891, at his own request.

**APPOINTMENTS.**—Wm. H. Hawkins, July 3, 1891; F. J. C. Weniger, Dec. 9, 1891; F. S. Lighton, Dec. 22, 1891, all as Fourth Grade Privates, and Thos. J. Mooney, Jan. 11, 1892, as Call Private. B. F. F. Abbott, C. A. Boardman, H. L. Cox, E. F. Curtis, T. H. Doyle, F. R. Dix, J. N. Faulkner, D. Gleason, S. A. McDonnell, and J. L. Osgood, Feb. 29, 1892, as Auxiliary Privates.



PROMOTIONS.—Fourth Grade Private James H. Ryan to Third Grade Private, Sept. 1, 1891. Fourth Grade Private Wm. H. Hawkins to Third Grade Private, Jan. 2, 1892.

### WAGONS, HORSES, AND EQUIPMENTS.

The wagons, with the exception of No. 1, are in good condition; old wagon No. 2 has been thoroughly renovated, so that it is as good as new, and numbered 4; new wagons Nos. 2 and 3 have been purchased during the past year. February 29, 1892, wagon No. 3 was placed in commission and assigned to company No. 1 as the second section. I recommend that a new wagon be purchased in place of No. 1, and use No. 1 as a relief wagon. The horses and equipments are in good condition.

### HOUSES.

The houses of the Department are in good condition; No. 1 house has been altered to afford increased accommodations for the Auxiliary force. This work has been performed by members of the Department, the expense being for stock only.

I recommend that the Board consider the advisability of placing an additional story on the building for the purpose of drying covers, as the drying space in this house is not sufficient to meet extra emergencies. On or before July 1, 1892, Company No. 2 will be located in their new quarters on Appleton Street, which will be sufficiently large to meet the requirements for a number of years.

### OFFICERS AND PRIVATES.

The rank and file of the Department have performed their duties with zeal and efficiency, but two cases being reported for neglect of duty; the delinquents were both dishonorably discharged from the department.

### MEDICAL OFFICER.

The beneficial effect resulting from service rendered by this officer is becoming more apparent each year. (See Medical Officer's Report.)

### FIRE ALARMS.

Total number of fires and alarms for this year was 1015, it being 93 more than last year, and the largest tabulated.

### SERVICE PERFORMED.

820 1-12 hours' fire service, 2,611 1-2 hours' watch duty, and 145 1-2 hours' service, protecting buildings and contents from storms, an equivalent to 149 days, 1 hour, and 5 minutes, it being an increase of 11 days, 18 hours, and 20 minutes, in comparison with the previous year.

### COVERS.

2,683 covers were used in covering goods at fires, 97 covers on goods, and 57 covers on roofs, to protect the buildings and contents after fires from additional damage by storms; making a total of 2,837 covers used, it being the largest amount spread since the Department was organized, except the year 1883 when 2,948 covers were used. I recommend that fifty (50) covers be purchased during the coming year.

### FIRE DEPARTMENT.

The same friendly feelings between the Fire and this Department continue to exist.

### CONCLUSION.

In closing, I desire to express my sincere thanks to President Geo. P. Field, the Board of Directors, Secretary-Treasurer Edward Spaulding, and Medical Officer Wm. F. Temple, M. D., for their uniform kindness and co-operation; and also to the officers and privates of this Department for the earnest and faithful manner in which they have performed their duties; also to the Board of Fire Commissioners, Chief of Department L. P. Webber and District Chiefs, Inspector of Wires B. S. Flanders, Superintendent H. R. Demary of the Fire Department Repair Shop, and all the officers and members of the Fire Department, together with the officers and members of the Police Department, for their courtesy and assistance at all times.

Respectfully submitted,

SAMUEL ABBOTT, JR.,

*Superintendent.*



# ROSTER OF THE OFFICERS AND MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT.

SUPERINTENDENT, SAMUEL ABBOTT, JR. SECRETARY-TREASURER, EDWARD SPAULDING.  
 MEDICAL OFFICER, WILLIAM F. TEMPLE, M. D.

## COMPANY No. 1. No. 5 Hamilton St. PERMANENT FORCE.

Rank.	Name.	Age.	Former Occupation.	Residence.	No. of Badge.	Assigned for Duty.
Captain.	Jas. H. Huff.....	45	Mason.....	8 Oak St.	14	Company Quarters.
Lieutenant,	D. W. Brown.....	40	Clerk.....	614 Dudley St.	15	" "
Sergeant,	A. F. Hall.....	38	Ship Joiner.....	285 Meridian St., E. Boston.	21	" "
1st Grade Private,	G. W. Thompson.....	36	Driver.....	56 Winthrop St., Charlestown.	19	" "
" "	A. T. Osborne.....	35	Machinist.....	11 Albion St., Roxbury.	20	" "
" "	J. T. Fitzgerald.....	32	Clerk.....	67 Shawmut Avenue.	23	" "
" "	H. W. Kinball.....	33	Clerk.....	14 Charles St., Charlestown.	24	" "
" "	J. J. McCarthy.....	39	Clerk.....	9 Knox St.	22	" "
" "	H. E. Thompson.....	34	Painter.....	30 Essex St., Charlestown.	25	" "
2d	G. W. Thompson, 2d...	26	Teamster.....	5 Hamilton St.	23	" "
3d	W. H. Hawkins.....	25	Driver.....	54 Chambers St.	17	" "
House Janitor,	D. R. Dearing.....	56	Engineer.....	5 Hamilton St.	44	" "

## AUXILIARY FORCE.

Rank.	Name.	Age.	Former Occupation.	Residence.	No. of Badge.	Assigned for Duty.
Auxiliary Private,	B. F. F. Abbott.....	20	Telegraph Lineman...	1098 Washington St.	51	Company Quarters.
" "	C. A. Boardman.....	22	Steam Fitter.....	15 Harvard Sq., Charlestown.	52	" "
" "	H. L. Cox.....	25	Patrolman.....	52 Howard St.	53	" "
" "	E. F. Curfiss.....	22	Clerk.....	333 Main St., Charlestown.	54	" "
" "	T. H. Doyle.....	26	Paper Cutter.....	6 Juniper St., Roxbury.	55	" "
" "	F. R. Dix.....	23	Plumber.....	373 Tremont St.	56	" "
" "	J. N. Faulkner.....	25	Box Manufacturer.....	14 Codman Park, Roxbury.	57	" "
" "	D. Gleason.....	25	Wood Turner.....	322½ Tremont St.	58	" "
" "	S. A. McDonnell.....	21	Carpenter.....	7 Shawmut St.	59	" "
" "	J. L. Osgood.....	22	Clerk.....	Amory St., W. Roxbury,	60	" "



COMPANY No. 2. No. 16 Broadway Extension. PERMANENT FORCE.

Rank.	Name.	Age.	Former Occupation.	Residence.	No. of Badge.	Assigned for Duty.
Captain.	S. E. Smith.....	42	Fireman.....	1 Mystic St., Charlestown.	13	Company Quarters.
Lieutenant.	H. S. Kendall.....	45	Painter.....	14 Taylor St.,	16	"
Sergeant.	C. Schvorn.....	34	Wood Carver.....	142 Bowen St., So. Boston.	18	"
1st Grade Private.	C. H. Cushing.....	44	Driver.....	32 Broadway, So. Boston.	31	"
"	S. W. Rontunus.....	38	Paper Hanger.....	356 Tremont St.	29	"
"	G. H. Carter.....	43	Porter.....	Rear of 893 Washington St.	28	"
2d	G. W. Thompson, Jr....	26	Plumber.....	76 Sawyer St.	32	"
3d	J. H. Ryan.....	31	Telegraph Operator.....	143 W. Third St., So. Boston.	33	"
4th	F. J. C. Weniger.....	27	Painter.....	90 Camden St.	27	"
"	F. S. Loughton.....	24	Driver.....	229 Main St., Charlestown.	30	"

CALL FORCE.

Rank.	Name.	Age.	Former Occupation.	Residence.	No. of Badge.	Assigned for Duty.
Call Private.	P. A. Garcia.....	35	Clockmaker.....	46 Winslow St., Roxbury.	38	Roxbury District.
"	G. J. Reis.....	29	Teamster.....	115 Rugles St., Roxbury.	43	"
"	F. C. Byrnes.....	34	Expressman.....	835 E. Fourth St., So. Boston.	37	South Boston
"	E. Fruean, Jr.....	26	Tinsmith.....	Upham's Court, Dorchester.	41	Dorchester
"	G. W. Dalton.....	51	Blacksmith.....	1164 Washington St., Dorchester	36	"
"	C. A. Wood.....	49	Carpenter.....	3274 Wash'ton St., W. Roxbury.	40	West Roxbury
"	S. S. Bearse.....	27	Teamster.....	71 Poplar St., W. Roxbury.	42	"
"	J. J. O'Keefe.....	39	Teamster.....	48 Winship St., Brighton.	39	Brighton
Appointments.				Dis honorably Discharged.		
Promotions.				1st Grade Private, F. O. Hinekey, Dec. 3, 1891.		
F. J. C. Weniger, Fourth Grade Private				3d Grade Private, C. A. Floyd, Dec. 7, 1891.		
Dec. 9, 1891.						
F. S. Loughton, Fourth Grade Private						
Dec. 22, 1891.						
Fourth Grade Private, C. A. Floyd to						
Third Grade Private, July 1, 1891.						
Fourth Grade Private, James H. Ryan to						
Third Grade Private, Sept. 1, 1891.						



## SCHEDULE OF PROPERTY

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES NOS. ONE AND  
TWO, AND IN THE OUTLYING DISTRICTS.

---

Horses . . . . .	7
Wagons "complete" . . . . .	4
Pungs       ,, . . . . .	1
Wagons for Superintendent . . . . .	2
Sleighs   ,,       ,, . . . . .	2
Rubber Covers . . . . .	437
Canvas   ,,   for roofs . . . . .	4
Fire Extinguishers . . . . .	6
Life-Saving Blankets . . . . .	2
Sets of patent double harnesses, "new" . . . . .	3
,,       ,,       ,,       ,,       "old" . . . . .	2
Single harnesses . . . . .	3
Wagon poles "extra" . . . . .	2
Wheels "extra" . . . . .	4
Whiffletrees "extra" . . . . .	5
Bedsteads with bedding . . . . .	37
Mantle bedsteads with bedding . . . . .	2
Billiard table "complete" . . . . .	1
Helmets . . . . .	30
Necessary tools and equipments.	
,,       stable equipments.	
,,       extra parts of harnesses.	
,,       house furniture and fixtures.	
,,       telegraph apparatus.	
,,       gas fixtures.	
,,       supplies.	
,,       stationery.	

For detailed statement see Quarterly Report at Superintendent's Headquarters.



OFFICE OF SECRETARY-TREASURER,  
No. 5 HAMILTON STREET,

BOSTON, March 1, 1892.

TO THE PRESIDENT AND DIRECTORS:

*Gentlemen*.— The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1891, to Dec. 31 inclusive, is as follows. The loss to companies for the year 1891 being divided, shows:—

Insurance on buildings . . . . .	\$5,357,350.42
Loss on buildings . . . . .	315,821.99
Insurance on contents . . . . .	5,090,526.45
*Loss on contents . . . . .	1,073,055.44
Insurance on marine risks . . . . .	8,341.72
Loss on marine risks . . . . .	6,009.84
Insurance on rents . . . . .	67,100.00
Loss on rents . . . . .	5,999.62

## CAUSES OF FIRES AND ALARMS.

MARCH 1, 1891, TO FEB. 29, 1892, INCLUSIVE.

Assistance, calls for . . . . .	5
Buildings, defective . . . . .	24
Carelessness . . . . .	382
Electricity . . . . .	10
Fireworks . . . . .	19
Gas . . . . .	54
Incendiary (supposed) . . . . .	40
Kerosene oil . . . . .	109
Matches . . . . .	135
Needless . . . . .	36
Sparks . . . . .	44
Spontaneous combustion . . . . .	34
Unknown . . . . .	116
Vapors . . . . .	7

1015

\*All unsettled losses are estimated, including those of Parker, Holmes & Co. and Hosmer, Coddington & Co.

## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers used, Fire Watch, and Extra Duty performed for the Year Ending March 1, 1892.

Months.	Alarms.					Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by occ.	Total.	Spread.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra Covers Used.
March, 1891	42	20	2	1	65	145	6	3	60	15	234	—	17	30	15
April, "	70	11	1	1	83	458	5	2	67	30	286	15	23	30	12
May, "	71	9	1	—	81	40	6	9	60	30	82	30	7	45	2
June, "	63	20	2	—	85	358	1	2	62	20	123	15	23	30	42
July, "	86	14	3	—	103	193	8	9	67	—	125	45	5	30	—
August, "	47	13	—	1	63	292	2	2	44	—	316	15	26	30	15
Sept., "	43	12	2	—	57	43	—	1	39	45	103	15	—	—	—
October, "	73	12	1	—	86	153	—	2	72	45	217	—	11	—	—
Nov., "	69	16	2	1	88	368	6	2	80	30	195	15	7	—	2
Dec., "	88	19	4	1	112	228	14	5	98	30	487	—	11	45	—
January, 1892	69	20	7	—	96	170	4	4	71	45	197	15	3	45	—
February, "	65	27	4	—	96	235	5	2	95	15	238	45	7	45	9
	786	193	31	5	1015	2,683	57	43	820	05	2,611	30	145	30	97

Comparison of Fires, Covers Spread, Fire and Watch Duty performed for ten years, each year commencing March 1, and ending the last day of February.

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1015	2,683	820	05	2,611	30

## MONTHLY STATEMENT

Of Insurance and Loss on Buildings, Contents, Rents, and Marine, for the year ending March 1st, 1892.

Months.	Buildings.		Contents.		Losses not Insured.		Total.		Rents.		Marine.	
	Insurance.	Loss.	Insurance.	Loss.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.
March, 1891	\$25,050.00	\$42,911.61	\$257,000.00	\$106,838.03	\$11,122.70	\$30,897.96	\$582,050.00	\$191,770.30	\$3,000.00	.....	\$3,000.00	\$1,208.12
April, "	600,284.33	28,308.31	532,915.10	80,854.52	275.00	3,070.00	1,133,199.43	121,567.83	.....	\$3,573.12	.....	.....
May, "	286,600.00	7,989.18	75,907.00	9,736.92	1,835.00	2,133.00	362,507.00	21,634.10	.....	.....	.....	.....
June, "	230,256.67	22,574.87	269,406.67	98,748.43	25.00	3,990.91	499,663.57	125,339.21	.....	.....	.....	.....
July, "	634,670.25	17,098.95	303,066.20	23,979.84	820.00	1,499.00	997,726.45	43,397.79	.....	.....	.....	.....
Aug., "	483,975.00	36,289.14	133,500.00	57,903.20	309.00	654.00	677,475.00	95,155.34	.....	.....	.....	.....
Sept., "	191,100.00	32,289.15	65,429.22	12,663.72	800.00	363.00	256,524.00	28,031.67	.....	.....	.....	.....
Oct., "	288,030.00	22,041.95	288,594.00	48,379.33	4,952.50	11,069.50	576,524.00	87,043.28	.....	.....	.....	.....
Nov., "	524,000.00	46,657.08	245,388.50	73,688.20	3,492.50	28,382.01	769,388.59	152,219.79	16,000.00	417.00	.....	.....
Dec., "	612,192.12	28,000.29	1,503,121.20	453,948.97	35.00	7,240.00	2,112,313.32	499,314.26	14,000.00	1,084.42	.....	.....
*Jan., 1892	678,635.00	21,175.13	212,550.00	99,687.55	67.81	3,764.24	891,175.00	124,694.73	6,000.00	100.00	57,500.00	24,725.00
*Feb., "	596,800.00	28,472.00	651,161.00	53,371.94	840.00	10,019.90	1,247,961.00	92,765.84	3,000.00	.....	.....	.....
	\$5,511,583.37	\$225,873.46	\$4,598,029.21	\$1,128,800.65	\$24,574.51	\$103,683.52	\$10,109,612.58	\$1,582,932.14	\$55,500.00	\$5,174.54	\$60,500.00	\$25,933.12

\* Partially settled only; unsettled losses estimated.

## Comparison of Insurance and Losses for ten years, each year commencing March 1st, and ending the last day of February.

Year.	Insurance.	Total Loss.	Loss not Insured.
1882	\$5,209,049.83	\$ 940,073.69	\$172,401.59
1883	6,972,141.29	1,100,381.81	163,160.05
1884	6,933,012.24	1,256,944.74	123,389.95
1885	6,371,291.77	1,167,835.28	148,422.58
1886	4,194,491.11	905,080.68	281,344.66
1887	6,440,632.21	734,737.21	150,187.90
1888	7,490,420.52	1,080,217.96	112,538.37
1889	13,014,984.37½	5,078,142.18	814,056.39
1890	7,730,043.60	787,577.27	67,404.05
1891	10,109,612.58	1,582,932.14	128,255.05

## FIRES AND ALARMS.

BY MONTHS, DAYS OF THE WEEK, DAYS OF THE MONTH, AND HOURS OF THE DAY, FROM MARCH 1, 1891, TO MARCH 1, 1892.

Months.			Days of Week.		Days of the Month.		Hours of the Day.	
March, 1891.	65	Monday . .	130	1	33	Day Service.	6 to 7 A. M.	16
				2	28		7 " 8 "	25
				3	41		8 " 9 "	26
April, "	83	Tuesday . .	165	4	40		9 " 10 "	36
				5	35		10 " 11 "	36
				6	36		11 " 12 NOON.	39
May, "	81	Wednesday .	155	7	37		12 " 1 P. M.	36
				8	34		1 " 2 "	48
				9	32		2 " 3 "	51
June, "	85	Thursday . .	136	10	32		3 " 4 "	46
				11	37		4 " 5 "	50
				12	38		5 " 6 "	74
July, "	103	Friday . . .	139	13	27	Night Service.	6 " 7 "	64
				14	32		7 " 8 "	91
				15	30		8 " 9 "	82
August, "	63	Saturday . .	169	16	37		9 " 10 "	58
				17	40		10 " 11 "	50
				18	31		11 " 12 MIDN.	29
September, "	57	Sunday . . .	121	19	31		12 " 1 A. M.	36
				20	38		1 " 2 "	25
				21	33		2 " 3 "	34
October, "	86			22	19		3 " 4 "	23
				23	36		4 " 5 "	21
				24	35		5 " 6 "	19
November, "	88			25	21			
				26	43			
				27	27			
December, "	112			28	35			
				29	31			
January, 1892.	96			30	28			
				31	18			
February, "	96							
Totals . . .	1015		1015		1015			1015

## DISTRICTS WHERE ALARMS WERE GIVEN.

City Proper . . . . .	504
Boston Highlands District . . . . .	106
Charlestown " . . . . .	104
East Boston " . . . . .	57
South Boston " . . . . .	98
Dorchester " . . . . .	54
West Roxbury " . . . . .	63
Brighton " . . . . .	24
Somerville " . . . . .	2
Chelsea " . . . . .	1
Cambridge " . . . . .	1
Milton " . . . . .	1
Total . . . . .	1015

# CLASSIFICATION OF COVERS SPREAD.

36 Fires of 1 Cover each . . . . .	36	3 Fires of 27 Covers each . . . . .	81
21 " " 2 Covers " . . . . .	42	2 " " 28 " " . . . . .	56
16 " " 3 " " . . . . .	48	1 Fire " 29 " " . . . . .	29
15 " " 4 " " . . . . .	60	2 Fires " 32 " " . . . . .	64
3 " " 5 " " . . . . .	15	1 Fire " 34 " " . . . . .	34
4 " " 6 " " . . . . .	24	1 " " 35 " " . . . . .	35
8 " " 7 " " . . . . .	56	2 Fires " 36 " " . . . . .	72
8 " " 8 " " . . . . .	64	1 Fire " 38 " " . . . . .	38
4 " " 9 " " . . . . .	36	1 " " 39 " " . . . . .	39
4 " " 10 " " . . . . .	40	1 " " 40 " " . . . . .	40
3 " " 11 " " . . . . .	33	1 " " 52 " " . . . . .	52
4 " " 12 " " . . . . .	48	1 " " 53 " " . . . . .	53
2 " " 13 " " . . . . .	26	1 " " 67 " " . . . . .	67
5 " " 14 " " . . . . .	70	1 " " 71 " " . . . . .	71
2 " " 16 " " . . . . .	32	1 " " 80 " " . . . . .	80
2 " " 17 " " . . . . .	34	1 " " 91 " " . . . . .	91
2 " " 18 " " . . . . .	36	1 " " 96 " " . . . . .	96
2 " " 19 " " . . . . .	38	1 " " 106 " " . . . . .	106
1 Fire " 21 " . . . . .	21	1 " " 113 " " . . . . .	113
1 " " 24 " . . . . .	24	1 " " 150 " " . . . . .	150
3 Fires " 25 " . . . . .	75	1 " " 183 " " . . . . .	183
2 " " 26 " . . . . .	52	1 " " 223 " " . . . . .	223

Total Fires . . . . . 175

Total Covers . . . . . 2,683

175 Fires, 2,683 Covers. Average, 15.1/3.

## COVERS.

On hand last report . . . . .	460
Condemned and destroyed . . . . .	3
Turned over to Haverhill Fire Dept. Feb. 27, 1892 . . . . .	20
	— 23
Total Covers on hand March 1, 1892 . . . . .	437



## GRADE OF LOSSES.

Grade of Losses for the year 1891, commencing January 1st, and ending December 31st.

406	Fires with no loss.	Aggregate.	Average.
307	" " loss under \$100 . . . . .	\$11,134.24	\$36.26
130	" " " from \$100 to \$500 . . . . .	27,778.36	213.67
45	" " " " \$500 to \$1,000 . . . . .	30,940.12	687.55
83	" " " " \$1,000 to \$5,000 . . . . .	175,482.31	2,114.24
16	" " " " \$5,000 to \$10,000 . . . . .	91,757.86	5,734.86
9	" " " " \$10,000 to \$15,000 . . . . .	116,515.64	12,946.18
Over \$15,000 as follows:—			
1	Fire Jan. 2, 86 to 92 Franklin St., Rufus S. Frost & Co., Dry Goods; Nelson H. Brown, Clocks, and others . . . . .	17,020.25	} \$1,058,005.88
1	" Jan. 10, 30 to 40 Hanover St., Nathan Waxman, Clothing . . . . .	28,900.22	
1	" March 4, Centre St., West Roxbury, F. P. Robertson & Co., Dye Works . . . . .	69,341.29	
1	" " 9, Hano St., Brighton, Hano Mfg. Co., Manifold Books, and dwellings . . . . .	81,226.44	
1	" April 19, 93 to 97 Court, and 1 and 3 Hanover Sts., Bailey & Rankin, Carpets, and others . . . . .	34,821.82	
1	" " 30, 30 to 40 Hanover St., Geo. C. Goodwin & Co., Wholesale Drugs, and others . . . . .	50,094.70	
1	" June 2, 99 and 101 Broad St., West & Jenny, Wholesale Drugs . . . . .	76,528.53	
1	" August 18, 326 to 330 Congress St., Putnam & Co., Beds and Mattresses . . . . .	45,721.43	
1	" " 27, 121 to 131 Friend St., Moses Coleman & Co., Carriages, and others . . . . .	39,007.22	
1	" October 10, Pynchon St., Roxbury, Highland Foundry Co. . . . .	16,494.45	
1	" " 24, Hyde St., and Washington Ave., Union Cotton Ginning Co. . . . .	28,715.50	} 66,129.12 1,493.75
1	" " 26, Water and Charles River Sts., Charlestown, New England Preserving Co. . . . .	24,154.50	
1	" November 1, 619 to 623 Albany St., Mellish, Byfield & Co., Chair Manufacturers, and other wood-workers . . . . .	49,183.21	
1	" " 26, 209 to 215 Tremont St., Ticknor & Co. Publishers, and Heliotype Publishing Co. . . . .	33,828.45	
1	" December 27, 129 to 141 Federal St., Hosmer, Coding & Co., and Parker, Holmes & Co., Jobbers in Boots and Shoes. This loss is only partially settled, and with the building, loss is estimated at . . . . .	430,000.00	
1	" " 30, 167 to 173 Washington St., Joel Goldthwaite & Co., Carpets; J. Elliot Bond, Furniture and Carpets . . . . .	33,027.97	
3	Marine losses (see tables). . . . .		
1015		1,511,674.51	

The 606 fires where there was a loss, the average was \$2,494.51.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for ten years, commencing January 1, 1882.

Year.	Total Fires	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average loss of total Fires with loss.
1882	502	329	\$958,835.88	\$1,910.03	\$2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,879.62	6,103.15	9,756.84
1890	933	562	1,088,887.29	1,167.08	1,937.52
1891	1,015	606	1,511,674.51	1,493.75	2,494.51
Total.	7,442	4,619	14,657,095.01	1,969.51	3,173.21

## CAUSES OF FIRES AND ALARMS.

Alarms, false . . . . .	37
"    needless . . . . .	36
Ashes, hot . . . . .	6
"    "    from a pipe . . . . .	16
"    "    in wooden receptacle . . . . .	11
Assistance called for . . . . .	5
Attempting to thaw out water-pipes . . . . .	5
Boiling over of kettle of cement . . . . .	1
"    "    fat . . . . .	9
"    "    tar . . . . .	2
Bonfires . . . . .	6
Boys, set by . . . . .	29
Brush fires . . . . .	8
Burning of a kettle of meat . . . . .	3
"    "    rags . . . . .	1
"    "    tobacco in coat pocket . . . . .	1
Candle, lighted . . . . .	11
Chimney fire . . . . .	24
Cigar stubs, lighted . . . . .	16
Cigarettes " . . . . .	4
Curtain and lamp . . . . .	1
Coffee blower . . . . .	1
Cotton waste . . . . .	1
Defective chimneys . . . . .	14
"    ovens . . . . .	2
"    flues . . . . .	3
"    cooking range . . . . .	1
"    smelting furnace foundation . . . . .	1
"    smelters' forges . . . . .	2
"    stove pipe . . . . .	1
Furnaces . . . . .	3
Drying plastering . . . . .	5
Electric light wires . . . . .	10
Explosion of a calcium light cylinder . . . . .	1
"    "    boiler . . . . .	1
"    "    vapor from kerosene oil . . . . .	1
"    "    hot water heater . . . . .	1
"    "    barrel of black varnish . . . . .	1



Explosion of powder, . . . . .	1
Experimenting . . . . .	1
Fire-crackers . . . . .	18
Fireworks . . . . .	1
Friction from picker machines . . . . .	4
"    "    other machinery . . . . .	3
Fumigating rooms . . . . .	2
Gas-jet igniting insulation of electric wire . . . . .	1
" explosion of . . . . .	3
" jets, lighted . . . . .	14
"    "    igniting curtains . . . . .	22
"    "    "    goods in window . . . . .	1
" leakage, attempt to find with lighted candles or matches . . . . .	12
" stove . . . . .	1
Gasoline lamp, explosion of a plumber's lighted . . . . .	1
Gasoline, plumber's furnace . . . . .	1
Grass fires . . . . .	6
Glue kettle overheated . . . . .	1
Hot soot from chimneys . . . . .	8
" coal from stoves . . . . .	3
" castings . . . . .	2
" smelting pot . . . . .	1
" iron igniting woodwork . . . . .	2
Incendiary . . . . .	34
" supposed . . . . .	6
Kerosene oil, attempting to build fires with . . . . .	2
"    " lamps . . . . .	3
"    "    igniting clothing . . . . .	1
"    "    breaking of lighted . . . . .	16
"    "    explosion of . . . . .	39
"    "    upsetting of . . . . .	32
"    "    curtain igniting from lighted . . . . .	1
"    " stoves . . . . .	12
"    "    upsetting of lighted . . . . .	3
Lamps, lighted . . . . .	2
"    " unprotected . . . . .	1
Lanterns, breaking of . . . . .	2
Lime, slacking of . . . . .	5
Lightning . . . . .	1
Matches, children and . . . . .	44
" rats and . . . . .	31
" lighted . . . . .	6
"    " and curtains . . . . .	10
"    " thrown among clothing . . . . .	1
"    "    " rubbish and paper . . . . .	14
" other careless uses of . . . . .	28
" too near chimney in a box . . . . .	1

Manure pile, overheated . . . . .	1
Naphtha fumes, explosion of . . . . .	2
,,     ,,     from . . . . .	6
,,     stoves . . . . .	2
Overheated bearings . . . . .	4
,,     boilers . . . . .	7
,,     chimneys . . . . .	5
,,     furnaces . . . . .	9
,,     roofer's furnace . . . . .	1
,,     hot-air pipes . . . . .	6
,,     journals . . . . .	2
,,     oven . . . . .	1
,,     stoves . . . . .	27
,,     steam-pipe . . . . .	1
,,     engine room . . . . .	1
,,     smoke stacks . . . . .	2
,,     press iron . . . . .	1
Peanut roaster . . . . .	1
,,     ,,     smoke from . . . . .	1
Plumber's pot overturning . . . . .	1
Rekindling of fires . . . . .	5
Roofer's furnace . . . . .	1
Rubbish, fires in . . . . .	2
Smoky chimneys . . . . .	12
,,     furnaces . . . . .	2
,,     stoves . . . . .	5
Sparks from boilers . . . . .	3
,,     ,,     chimneys . . . . .	15
,,     ,,     blower . . . . .	1
,,     ,,     furnace . . . . .	1
,,     ,,     smelting furnace . . . . .	1
,,     ,,     forges . . . . .	6
,,     ,,     hoisting engines . . . . .	2
,,     ,,     locomotive engines . . . . .	8
,,     ,,     stoves . . . . .	2
,,     ,,     bonfire . . . . .	1
,,     ,,     adjacent fires . . . . .	2
,,     ,,     indoor fires . . . . .	2
Spontaneous combustion . . . . .	34
Stoves hot igniting clothing . . . . .	11
,,     drying wood on . . . . .	1
,,     overturned . . . . .	1
Steam escaping . . . . .	3
,,     pipe bursting . . . . .	1
Tar, igniting of kettles of . . . . .	2
Unknown . . . . .	116
Vapor from benzine igniting . . . . .	2



Statement of the Insurance ; loss paid by companies ; per cent. of insurance paid in losses by companies ; loss not insured ; total loss, and per cent. of total loss not insured on buildings and contents ; for ten years, each year commencing January 1, and ending December 31 ; also the total insurance ; total loss paid by companies ; per cent. of insurance paid in losses by companies ; total loss, and per cent. of total loss not insured ; for ten years.

### BUILDINGS.

Year.	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co's.	Loss not Insured.	Total Loss.	Percent. of Total Loss not Insured.
1882	\$2,405,529.94	\$159,246.42	66.62	\$26,271.67	\$185,518.09	14.16
1883	3,856,784.88	334,981.10	88.68	23,478.10	358,459.20	97.00
1884	3,227,819.93	189,168.83	58.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	72.22	24,240.96	246,042.71	99.85
1886	2,733,588.56	275,269.13	10.06	136,890.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	52.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85½	55.07	12,302.39½	240,236.25	55.12
1889	4,583,384.25½	911,382.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74

### CONTENTS.

Year.	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co's.	Loss not Insured.	Total Loss.	Percent. of Total Loss not Insured.
1882	\$2,475,362.73	\$622,795.39	25.16	\$150,522.40	\$773,317.79	19.46
1883	2,742,409.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	98.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.80½	715,197.05½	20.01	76,243.41½	791,440.47	99.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23

### TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents Paid by Companies.	Per cent. of total Insurance Paid in Losses by Co's.	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance.
1882	\$4,880,892.67	\$782,041.81	16.02	\$ 958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,253.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.91	11.69	1,031,676.72	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,512,074.51	14.47

\*The unsettled losses are estimated and include the two large boot and shoe losses of Parker, Holmes & Co. and Hosmer, Codding & Co.

Respectfully submitted,

EDWARD SPAULDING,

Secretary.

## MEDICAL OFFICER'S REPORT.

---

March 8, 1892.

SAMUEL ABBOTT, JR.,  
Supt. Boston Protective Dept.

*Dear Sir:* The second annual report of the work which has been accomplished by your Medical Officer is respectfully submitted:

Number of applicants examined for appointment . . . . .	30
Number of applicants examined for promotion . . . . .	4
Number of visits made on sick members . . . . .	64
Number of visits to injured members . . . . .	57
Number of attending physicians' reports examined . . . . .	35
Number of special reports made . . . . .	9
Number of accident cases attended . . . . .	1

Of the thirty applicants for appointment to the Department, eleven, or over one third, were rejected. This large proportion may be accounted for by the fact that many of them had already failed of appointment to the regular Fire Department of the city. The following table will show the causes why they were not recommended:

Organic disease of heart . . . . .	3
Organic disease of kidney . . . . .	1
Diabetes Mellitus . . . . .	1
Under weight and size . . . . .	3
Under size and over weight . . . . .	1
Over weight and habits . . . . .	1
Injury to eye-lid . . . . .	1

One of the four applicants for promotion was rejected on account of valvular disease of heart.

The plan adopted last year of visiting each station weekly has been followed during this, and with advantage to the Department.

The number of visits made on sick members (64) includes the consultations at the stations whilst they were on duty, so that no report has been necessary.

The members of the Department have thus been advised so that an absence from duty was prevented.

The number of visits to injured members represents both those accidents when the men were totally disabled, and also those when it was possible for them to report either for full or house duty.

There has been one accident case attended, a report of which has been forwarded. The person who was injured has nearly recovered, and the probabilities are that he will not be permanently disabled. He has been attended by your medical officer. (Number of visits, 8.)

The character of the injuries sustained is shown by the following table:

Sprained ankle . . . . .	2
Fracture 3d metacarpal bone (right hand) . . . . .	1
Fistula (rectum) operation . . . . .	1
Contusion hip (right) . . . . .	1
Contusion hip (left) . . . . .	1
Lacerated wound (hand) . . . . .	3
Lacerated wound (finger) . . . . .	1
Incised wound, knee (left) . . . . .	1
Incised wound (finger) . . . . .	1
Injury to joint (left knee) . . . . .	1
Burn (face) . . . . .	1
Splinter in hand . . . . .	1
Contusion of hand . . . . .	2
Ulcer of thigh due to accident . . . . .	1

Under the head of special reports are included those where an opinion has been asked for :

Tabulated they are as follows:

In regard to air-space for sleeping-room in new building . . . . .	1
In regard to the ability of certain members to again do duty . . . . .	6
In regard to the full hearing after accidents of injured members . . . . .	2

Concerning the recommendations of last year, it was deemed best to defer such instruction as was at that time proposed until the new men should be added; during the coming year such a series of talks on emergencies likely to arise and their immediate treatment would be advisable.

Your medical officer again wishes to thank both officers and men for the respect and assistance shown him in the discharge of his duties.

To the President and Superintendent he is sincerely grateful for kindnesses and aid in carrying out the demands of the Department.

W. F. TEMPLE,  
*Medical Officer, Boston Protective Department.*

NINETEENTH

ANNUAL REPORT

OF THE

4353.53

Boston Protective Department,

FROM MARCH 1, 1892, TO MARCH 1, 1893.

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BOSTON:

L. BARTA & CO., PRINTERS,

The Barta Press,

148 HIGH STREET, BOSTON,

1893.





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## OFFICERS.

---

*President :*

GEORGE P. FIELD.

*Vice-President :*

THOMAS F. TEMPLE.

*Secretary-Treasurer :*

EDWARD SPAULDING.

*Directors :*

TO SERVE UNTIL MARCH, 1893.

THOMAS F. TEMPLE.

A. M. BULLARD.

JAMES BRUERTON.

TO SERVE UNTIL MARCH, 1894.

GEORGE P. FIELD.

FRANCIS H. STEVENS.

GEORGE H. BALCH.

TO SERVE UNTIL MARCH, 1895.

ROBERT A. BOIT.

ARTHUR W. POPE.

FRED. B. CARPENTER.



## REPORT OF THE DIRECTORS.

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BOSTON, MARCH 1, 1893.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT:—

The Directors submit herewith the 19th Annual Report of the Department.

The establishment of the Auxiliary Force, commenced last year, has been completed, and we now have in each Station the complete equipment for a double Company. By reference to the Superintendent's Report, you will see that this increase of our force was most wisely undertaken, as without it the Department could not have protected the property exposed by the numerous fires of the year.

The new Station No. 2, on Appleton Street, has been finished during the year, and was formally opened on the evening of June 28, when your Directors had the pleasure of receiving the Members in an inspection of the new quarters. The increased room thus afforded has contributed much to the efficiency of the Department, especially in the matter of caring for covers, as we can now wash and rapidly dry one hundred covers, nearly four times our previous capacity.

The reports of the Superintendent, Secretary, Treasurer, and Medical Officer, with statistical tables, are submitted herewith. The publication of the detailed roster of the Department has been discontinued, because of the large increase in the force, but is open to the inspection of members at the Superintendent's office.

The Board recommend, *first*, that the active duties of the Department be continued for another year; *second*, that the Directors be authorized to expend for the maintenance of the Department the coming year a sum not exceeding Sixty Thousand Dollars (\$60,000).

For the Directors,

GEORGE P. FIELD,  
*President.*

## TREASURER'S

### RECEIPTS AND EXPENDITURES OF THE BOSTON

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1892.		
March.	By Cash on hand, Balance . . . . .	\$14,317.49
	Balance of Assessments of January 1, 1892, collected . . . . .	10,725.21
	Six Months' Assessments to July 1, 1892 . . . . .	26,325.22
	Six Months' Assessments to January 1, 1892 . . . . .	27,822.70
	Interest, Eliot National Bank . . . . .	288.54
	Cash received for Watch Duty . . . . .	1,213.63
	Cash received for Sale of Horses . . . . .	525.00
	Cash received for Sale of Old Material . . . . .	32.56
	Cash received for Tools Lost . . . . .	5.90
		<hr/>
		\$81,256.25

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### NET RUNNING EXPENSES.

March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	23,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	41,681.42
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08



## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1893.

## To Cash paid:—

Pay-roll . . . . .	\$37,953.15
Rent and Taxes of Houses . . . . .	3,603.10
Hay and Grain . . . . .	783.50
Wagon and Harness Repairs . . . . .	459.52
Horse Shoeing . . . . .	287.23
Fuel . . . . .	361.52
Gas . . . . .	462.61
Washing . . . . .	415.68
Supplies . . . . .	358.76
New England Telephone and Telegraph Co. . . . .	186.67
Automatic Fire Alarm and New Electric Apparatus . . . . .	1,476.96
Water Tax . . . . .	35.90
Repairs and Furnishing of Houses (ordinary) . . . . .	227.11
Purchase and Hire of Horses . . . . .	1,681.09
Veterinary Services . . . . .	139.23
Sundries . . . . .	230.70
Directors' Meetings . . . . .	96.00
Secretary, Treasurer, and Boy . . . . .	2,016.31
Medical Officer . . . . .	500.00
Printing and Stationery . . . . .	1,590.73
Advertising Annual Meeting . . . . .	55.42
Auditors' Fees . . . . .	60.00
Surety Bond . . . . .	75.00
New Fire Hats . . . . .	195.50
New Furnace in House, No. 1 . . . . .	401.32
Alterations in House, No. 1 . . . . .	102.89
Equipping New Wagons . . . . .	142.34
New Harnesses and Horse Covers . . . . .	223.20
Equipping House, No. 2 . . . . .	1,318.62
Entertaining at Opening of New House, No. 2 . . . . .	136.84
Employees' Liability . . . . .	292.50
New Extinguishers . . . . .	30.00
	<hr/>
Paid for Watch Duty . . . . .	\$55,899.40
Rebates on Assessments . . . . .	510.31
Balance due for Assessments of January 1, 1893 . . . . .	11.28
Balance Cash on Hand . . . . .	15,243.37
	<hr/>
	9,591.89
	<hr/>
	\$81,256.25

E. &amp; O. E.

EDWARD SPAULDING, *Treasurer.*

BOSTON, March 7, 1893.

Audited and found correct to date.

P. E. EDDY,	} <i>Auditing Committee.</i>
FREDERICK W. PORTER,	
EDWARD D. BLAKE.	

## SUPERINTENDENT'S REPORT

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HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT., No. 5 HAMILTON ST. }

BOSTON, March 1, 1893.

TO THE PRESIDENT AND DIRECTORS :

*Gentlemen:* I herewith submit the Nineteenth Annual Report of operations of the Department, for year ending March 1, 1893.

The several tables of statistics heretofore submitted have been extended to include the period above mentioned. (See Secretary's Report.)

The organization of the Department continues the same as last year, with the exception of being reënforced by ten (10) auxiliary privates assigned to Company No. 2, which occurred June 29, 1892.

The roster of the Department comprises : —

SUPERINTENDENT,  
SECRETARY-TREASURER,  
MEDICAL OFFICER.

**Company No. 1.** Captain, Lieutenant, Sergeant, 8 permanent, 10 auxiliary, 2 call privates, and a watchman.

**Company No. 2.** Captain, Lieutenant, Sergeant, 9 permanent, 10 auxiliary, 6 call privates, and a watchman; total, 56.

From 6 A. M. to 7 P. M. the active force in the city proper consists of twenty-two officers and permanent privates; from 7 P. M. to 6 A. M. they are reënforced by twenty auxiliary privates.

Call privates are located in the outlying districts and are on duty only when the Ladder Truck to which they are assigned responds to an alarm.

The discontinuing of striking alarms for fire on the bells in the Roxbury District necessitates the assignment of permanent men on Trucks Nos. 4 and 12.

From 6 A. M. to 7 P. M. there are twenty-two officers and privates, with two wagons fully equipped in service.

From 7 P. M. to 6 A. M. there are forty-two officers and privates, with four wagons fully equipped in service, during which time each company is divided into two sections, consisting of an equal number of permanent and auxiliary men; the sections respond on alternate nights to first alarms for fires; in case both sections in one house are called to different fires or a second alarm within the limit in outlying districts, the first OUT section of the other company locates in the vacated quarters and responds to alarms of fires in that district.

When a second alarm occurs in the City Proper, four wagons respond; as soon as the covering of goods has been completed, the IN sections are returned to quarters, to cover their respective districts.

The following service was performed by the IN sections during the past year.

	Co. No. 1.	Co. No. 2.
Errors in tapper alarms.....		2
Responding to alarms when first OUT section is at another fire.....	11	11
Covering Company district when both sections of one Company are at fires.....	4	1
Responding to alarms when the OUT section is covering a roof.....		1
"    "    "    "    at another fire.....	2	1

The number of times the four sections with wagons have been in service is eight; as follows:—

Nov. 8, 1892. Box 45 and 2d alarm, Nos. 91 and 93 Federal Street.

Jan. 11, 1893. Box 51 and 2d alarm, Nos. 109 to 113 Purchase Street.

Jan. 12, 1893. Box 45 and 2d alarm, Nos. 234 to 238 Devonshire Street.

Jan. 17, 1893. Box 47 and 2d alarm, No. 271 Franklin Street.

Jan. 25, 1893. Box 17 and 3d alarm, No. 31 Union Street.

Feb. 7, 1893. Box 51 and 3d alarm, Nos. 275 to 285 Congress Street.

Feb. 9, 1893. Box 47 and 2d alarm, No. 361 Atlantic Avenue.

Feb. 10, 1893. Box 48 and 2d alarm, Nos. 605 and 607 Atlantic Avenue.

At Box 48 and 3d alarm (Hecht Fire), which occurred at 8.25

A. M., Jan. 10, 1893, all the auxiliary privates reported at fire and were ordered on duty.

The total number of fires and alarms for this year was 1,242, it being 227 more than last year.

There were 1,061 hours' fire service, 5,554½ hours' watch duty, and 120¼ hours' service, protecting buildings and contents from storms, and equivalent to 280 days, 15 hours, and 45 minutes, it being an increase of 131 days, 14 hours, and 40 minutes, in comparison with the previous year.

There were 2,722 covers used in covering goods at fires, 105 covers on goods and 97 covers on roofs, to protect the buildings and contents after fires from additional damage by storms, making a total of 2,924 covers used; representing 631.584 square feet or about 14.5 acres.

The same friendly feeling between the Fire and this Department continue to exist.

In conclusion I desire to express my sincere thanks to all departments or persons who have in any way assisted this Department during the past year.

Respectfully,

SAMUEL ABBOTT, JR.,

*Superintendent.*

The following letter is similar to many received by this Department.

SAMUEL ABBOTT, JR., ESQ.,

SUPT. B. P. DEPT., 5 HAMILTON ST., BOSTON.

*Dear Sir:* I wish to thank you and the members of your Department for the thorough protection afforded us against loss by water during the recent fire in this building. Although two of our floors and the floors above us were flooded with water, no damage whatever was done to our property. Our citizens are to be congratulated on the proficiency of your Department.

Yours truly,

E. B. PILLSBURY,

*Manager* Postal Telegraph Cable Company.

January 17, 1893.



OFFICE OF SECRETARY-TREASURER,

No. 5 HAMILTON STREET,

BOSTON, March 1, 1893.

TO THE PRESIDENT AND DIRECTORS :

*Gentlemen*.:—The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1892, to Dec. 31, inclusive, is as follows. The loss to companies for the year 1892 being divided, shows :—

Insurance on buildings . . . . .	\$5,241,193.10
Loss on buildings . . . . .	228,817.43
Insurance on contents . . . . .	3,239,858.48
Loss on contents . . . . .	503,131.35
Insurance on marine risks . . . . .	58,057.57
Loss on marine risks . . . . .	25,057.81
Insurance on rents . . . . .	85,500.00
Loss on rents . . . . .	2,407.21

## CAUSES OF FIRES AND ALARMS.

MARCH 1, 1892, TO FEB. 29, 1893, INCLUSIVE.

Buildings, defective . . . . .	33
Carelessness . . . . .	395
Electricity . . . . .	27
Fireworks . . . . .	16
Gas . . . . .	53
Incendiary (supposed) . . . . .	51
Kerosene oil . . . . .	138
Matches . . . . .	150
Needless . . . . .	75
Sparks . . . . .	93
Spontaneous combustion . . . . .	56
Unknown . . . . .	145
Vapors . . . . .	11

1,242

## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March 1, 1893.

Months.	Alarms.					Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by occ.	Total.	Spread.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra Covers used.
March, 1892	67	27	3	2	99	97	2	4	85	45	141	15	3	—	14
April, "	95	21	3	1	120	331	1	12	97	15	191	—	2	15	—
May, "	60	17	1	2	80	87	9	8	53	15	45	15	8	—	—
June, "	67	24	6	—	97	129	6	3	75	15	217	15	5	30	3
July, "	83	32	2	—	117	160	—	12	90	15	134	15	1	—	2
August, "	59	23	1	—	83	286	4	3	80	15	151	45	8	—	11
Sept., "	47	25	5	—	77	44	2	12	54	—	46	15	3	—	—
October, "	63	19	4	1	87	172	3	12	83	15	116	—	—	30	18
Nov., "	64	31	2	6	103	399	26	6	92	30	166	—	22	45	6
Dec., "	95	39	6	1	141	164	19	—	132	30	941	45	16	—	2
January, 1893	89	39	7	1	136	401	8	3	113	15	2,075	00	18	30	—
February, "	72	25	5	—	102	452	17	7	98	30	1,328	45	31	45	49
	861	322	45	14	1242	2,722	97	42	1061	—	5,554	30	120	15	105

Comparison of Fires, Covers Spread, Fire and Watch Duty performed for thirteen years, each year commencing March 1, and ending the last day of February.

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1015	2,683	820	05	2,611	30
1892	1242	2,722	1,061	00	5,554	30



## MONTHLY STATEMENT

Of Insurance and Loss on Buildings, Contents, Rents, and Marine, for the year ending March 1, 1893.

Months.	Buildings.		Contents.		Losses not Insured.		Total.		Rents.		Marine.	
	Insurance.	Loss.	Insurance.	Loss.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.
March, 1892	\$516,800.00	\$24,803.30	\$243,624.94	\$67,364.41	\$ 670.00	\$ 6,591.81	\$ 765,424.94	\$ 90,429.51	\$64,500.00	.....	.....	.....
April, "	467,241.67	10,477.56	222,735.16	37,622.08	5,637.00	19,208.65	689,676.83	82,243.29	1,000.00	\$ 198.16	\$ 557.57	\$ 532.81
May, "	342,600.00	10,228.11	84,190.00	7,638.20	200.00	2,353.84	426,650.00	20,436.25	.....	.....	.....	.....
June, "	365,851.00	18,228.64	263,694.00	23,251.44	2,435.30	5,183.00	49,098.98	23,913.09	7,000.00	207.50	.....	.....
July, "	382,612.50	11,284.49	188,317.00	8,726.68	125.00	3,776.32	570,825.50	46,852.40	.....	.....	.....	.....
Aug., "	459,461.00	18,720.83	172,100.00	26,206.57	125.00	1,800.00	631,561.00	15,174.13	8,000.00	638.72	.....	.....
Sept., "	149,092.85	5,933.25	38,900.00	6,602.87	1,700.00	938.01	187,992.85	44,231.29	.....	.....	.....	.....
Oct., "	280,125.08	16,701.45	180,275.00	21,720.84	830.00	4,830.00	469,400.08	134,516.43	.....	.....	.....	.....
Nov., "	643,850.00	33,053.81	503,517.72	64,195.55	18,280.00	18,987.07	1,147,376.72	97,375.57	11,500.00	810.76	.....	.....
Dec., "	417,745.00	18,775.10	472,630.75	74,140.47	1,971.17	3,388.83	890,376.75	1,500,127.11	63,800.00	11,518.32	*0,000.00	500.00
Jan., 1893	906,650.00	*160,168.94	2,201,685.00	*1,292,377.59	32,971.12	14,609.46	3,108,335.00	179,835.92	1,200.00	*	.....	.....
Feb., "	579,100.00	*30,452.74	941,375.00	145,664.37	800.00	3,518.81	1,520,475.00	.....	.....	.....	.....	.....
	\$5,459,918.10	\$367,928.22	\$5,518,004.57	1,775,211.17	\$ 64,904.19	\$85,192.40	\$10,977,922.67	2,293,235.98	157,000.00	\$ 13,433.46	\$6,557.57	\$832.81

Ycar.	Buildings.		Contents.		Losses not Insured.		Total.		Rents.		Marine.	
	Insurance.	Loss.	Insurance.	Loss.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.
1880	.....	.....	\$6,009,756.00	.....	.....	.....	\$1,036,468.00	.....	.....	.....	.....	.....
1881	.....	.....	5,801,964.11	.....	.....	.....	551,058.82	.....	.....	.....	\$ 56,197.83	.....
1882	.....	.....	5,209,049.83	.....	.....	.....	940,073.69	.....	.....	.....	172,401.59	.....
1883	.....	.....	6,972,141.29	.....	.....	.....	1,100,381.81	.....	.....	.....	163,160.05	.....
1884	.....	.....	6,933,012.24	.....	.....	.....	1,256,944.74	.....	.....	.....	123,389.95	.....
1885	.....	.....	6,371,291.77	.....	.....	.....	1,167,835.28	.....	.....	.....	148,422.58	.....
1886	.....	.....	4,194,491.11	.....	.....	.....	995,080.68	.....	.....	.....	281,344.66	.....
1887	.....	.....	6,440,632.21	.....	.....	.....	734,737.21	.....	.....	.....	150,187.90	.....
1888	.....	.....	7,490,420.52	.....	.....	.....	1,080,217.96	.....	.....	.....	112,338.37	.....
1889	.....	.....	13,014,984.37 1/2	.....	.....	.....	5,078,142.18	.....	.....	.....	814,056.39	.....
1890	.....	.....	7,730,043.60	.....	.....	.....	787,577.27	.....	.....	.....	57,404.05	.....
1891	.....	.....	10,169,612.58	.....	.....	.....	1,582,932.14	.....	.....	.....	128,288.63	.....
1892	.....	.....	10,977,922.67	.....	.....	.....	2,293,235.98	.....	.....	.....	150,696.69	.....

\*Some unsettled losses; salvage, principally on wool is anticipated, amounting to several hundred thousand dollars.

Comparison of Insurance and Losses for Thirteen Years, each year commencing March 1st, and ending the last day of February.

Ycar.	Buildings.		Contents.		Losses not Insured.		Total.		Rents.		Marine.	
	Insurance.	Loss.	Insurance.	Loss.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.
1880	.....	.....	\$6,009,756.00	.....	.....	.....	\$1,036,468.00	.....	.....	.....	.....	.....
1881	.....	.....	5,801,964.11	.....	.....	.....	551,058.82	.....	.....	.....	\$ 56,197.83	.....
1882	.....	.....	5,209,049.83	.....	.....	.....	940,073.69	.....	.....	.....	172,401.59	.....
1883	.....	.....	6,972,141.29	.....	.....	.....	1,100,381.81	.....	.....	.....	163,160.05	.....
1884	.....	.....	6,933,012.24	.....	.....	.....	1,256,944.74	.....	.....	.....	123,389.95	.....
1885	.....	.....	6,371,291.77	.....	.....	.....	1,167,835.28	.....	.....	.....	148,422.58	.....
1886	.....	.....	4,194,491.11	.....	.....	.....	995,080.68	.....	.....	.....	281,344.66	.....
1887	.....	.....	6,440,632.21	.....	.....	.....	734,737.21	.....	.....	.....	150,187.90	.....
1888	.....	.....	7,490,420.52	.....	.....	.....	1,080,217.96	.....	.....	.....	112,338.37	.....
1889	.....	.....	13,014,984.37 1/2	.....	.....	.....	5,078,142.18	.....	.....	.....	814,056.39	.....
1890	.....	.....	7,730,043.60	.....	.....	.....	787,577.27	.....	.....	.....	57,404.05	.....
1891	.....	.....	10,169,612.58	.....	.....	.....	1,582,932.14	.....	.....	.....	128,288.63	.....
1892	.....	.....	10,977,922.67	.....	.....	.....	2,293,235.98	.....	.....	.....	150,696.69	.....

## FIRES AND ALARMS.

BY MONTHS, DAYS OF THE WEEK, DAYS OF THE MONTH, AND HOURS OF  
THE DAY, FROM MARCH 1, 1892, TO MARCH 1, 1893.

Months.			Days of Week.		Days of the Month.		Hours of the Day.	
March, 1892.	99	Monday . .	180	1	46	Day Service.	6 to 7 A. M.	22
				2	34		7 " 8 "	25
				3	46		8 " 9 "	32
April, "	120	Tuesday . .	179	4	52		9 " 10 "	44
				5	45		10 " 11 "	51
				6	46		11 " 12 NOON.	46
May, "	80	Wednesday .	187	7	49		12 " 1 P. M.	40
				8	37		1 " 2 "	63
				9	37		2 " 3 "	48
June, "	97	Thursday . .	202	10	44		3 " 4 "	70
				11	35		4 " 5 "	87
				12	44		5 " 6 "	74
July, "	117	Friday . . .	157	13	32	Night Service.	6 " 7 "	90
				14	44		7 " 8 "	95
				15	32		8 " 9 "	88
August, "	83	Saturday . .	189	16	33		9 " 10 "	65
				17	53		10 " 11 "	66
				18	41		11 " 12 MIDN.	50
September, "	77	Sunday . . .	148	19	38		1 " 2 A. M.	46
				20	36		2 " 3 "	45
				21	34		3 " 4 "	24
October, "	87			22	41		4 " 5 "	27
				23	48		5 " 6 "	30
				24	39			14
November, "	103			25	44			
				26	35			
				27	49			
December, "	141			28	34			
				29	38			
				30	36			
January, 1893.	136			31	20			
February, "	102							
Totals . . .	1242		1242		1242			1242

## DISTRICTS WHERE ALARMS WERE GIVEN.

City Proper . . . . .	681
Boston Highlands District . . . . .	117
Charlestown . . . . .	121
East Boston . . . . .	63
South Boston . . . . .	117
Dorchester . . . . .	60
West Roxbury . . . . .	55
Brighton . . . . .	28
Total . . . . .	1242

# CLASSIFICATION OF COVERS SPREAD.

51 Fires of 1 Cover each . . . . .	51	2 Fires of 26 Covers each . . . . .	52
28 " " 2 Covers " . . . . .	56	1 Fire " 27 " . . . . .	27
20 " " 3 " " . . . . .	60	3 Fires " 28 " " . . . . .	84
14 " " 4 " " . . . . .	56	1 Fire " 30 " " . . . . .	30
15 " " 5 " " . . . . .	75	1 " " 31 " " . . . . .	31
9 " " 6 " " . . . . .	54	1 " " 33 " " . . . . .	33
3 " " 7 " " . . . . .	21	1 " " 36 " " . . . . .	36
3 " " 8 " " . . . . .	24	1 " " 38 " " . . . . .	38
10 " " 9 " " . . . . .	90	1 " " 42 " " . . . . .	42
6 " " 10 " " . . . . .	60	1 " " 44 " " . . . . .	44
6 " " 11 " " . . . . .	66	1 " " 45 " " . . . . .	45
2 " " 12 " " . . . . .	24	1 " " 50 " " . . . . .	50
4 " " 13 " " . . . . .	52	1 " " 52 " " . . . . .	52
5 " " 14 " " . . . . .	70	1 " " 69 " " . . . . .	69
2 " " 15 " " . . . . .	30	3 Fires " 70 " " . . . . .	210
3 " " 16 " " . . . . .	48	1 Fire " 74 " " . . . . .	74
1 Fire " 17 " . . . . .	17	1 " " 85 " " . . . . .	85
2 Fires " 20 " " . . . . .	40	1 " " 96 " " . . . . .	96
2 " " 22 " " . . . . .	44	1 " " 98 " " . . . . .	98
2 " " 24 " " . . . . .	48	1 " " 174 " " . . . . .	174
5 " " 25 " " . . . . .	125	1 " " 241 " " . . . . .	241

Total Fires . . . . . 219

Total Covers . . . . . 2,722

219 Fires, 2,722 Covers. Average,  $12\frac{45}{100}$ .

## COVERS.

On hand last report . . . . . 437  
 Condemned and destroyed . . . . . 33  
 Turned over to Haverhill Fire Dept. July 19, 1892 . . . . . 10

— 43

Total Covers on hand March 1, 1893 . . . . . 394

## GRADE OF LOSSES.

Grade of Losses for the year 1892, commencing January 1st, and ending December 31st.

		Aggregate.	Average.
481	Fires with no loss.		
350	" " loss under \$100 . . . . .	\$12,618.89	\$36.06
185	" " " from \$100 to \$500 . . . . .	42,610.35	230.33
64	" " " \$500 to \$1,000 . . . . .	43,050.59	678.91
83	" " " \$1,000 to \$5,000 . . . . .	191,899.28	2,312.04
14	" " " \$5,000 to \$10,000 . . . . .	89,885.74	6,420.53
9	" " " \$10,000 to \$15,000 . . . . .	108,706.98	12,078.55
Over \$15,000 as follows:—			
1	Fire Jan. 23, 40 Ferdinand St., Boston, Electric Co., and others . . . . .	86,049.76	\$357,623.29
1	" Feb. 12, Tudor St., Robert Bishop, Cotton Waste Manf., and others . . . . .	17,626.90	
1	" " 15, Border St., Geo. McQuesteu & Co., Lumber Mill . . . . .	17,890.00	
1	" March 31, Dudley St., C. F. Lord & Co., stable and various other buildings . . . . .	56,283.57	
1	" April 30, 487-9 Atlantic Ave., Timothy Reinick Wool and Cotton Waste . . . . .	22,988.00	
1	" Nov. 5, Rear of 404 Border St., B. H. Murray, Planing Mill, Box Factory Lumber . . . . .	65,071.22	
1	" " 6, 1-9 Washington St., Whidden, Seaver & Co., Furniture Dealers . . . . .	15,940.83	
1	" " 8, 45 Federal St., S. K. Abbott & Co., Book-Binders, Rice, Kendall & Co., Paper, and others . . . . .	20,804.29	35,762.53 25,057.81
1	" Dec. 23, 42-44 Chauncy, Clark & Kaufman, Faucy Leather Goods . . . . .	27,635.00	
1	" " 25, 31-33 Winter St., Collamore & Co., Ladies' Furnishings . . . . .	27,333.72	
Marine losses (see tables) . . . . .			
1196		\$846,395.12	

The 718 fires where there was a loss, the average was \$1,178.82.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for twelve years, commencing January 1, 1881.

Year.	Total Fires	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average loss of total Fires with loss.
1881	558	344	\$467,105.28	\$837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,879.62	6,103.15	9,756.84
1890	933	562	1,088,887.29	1,167.08	1,937.52
1891	980	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	718	846,395.12	708.70	1,178.82
Total.	9,161	5,681	\$15,970,595.41	\$1,743.32	\$2,811.23

## CAUSES OF FIRES AND ALARMS.

---

Alarms, false . . . . .	45
,, needless . . . . .	75
Acid bottle breaking . . . . .	1
,, carboy breaking . . . . .	1
Ashes, hot . . . . .	10
,, ,, in wooden receptacles . . . . .	16
Attempting to thaw frozen water pipes . . . . .	35
Bees, smoking out . . . . .	1
Boiling over of a kettle of carbolic acid . . . . .	1
,, ,, ,, ,, fat . . . . .	9
,, ,, ,, ,, oil . . . . .	1
,, ,, ,, ,, tar . . . . .	1
Bonfires . . . . .	4
Boys, set by . . . . .	27
Brush fires . . . . .	14
Burning of a kettle of pitch . . . . .	1
Candle lighted . . . . .	11
Camphor fumes . . . . .	2
Chimney fires . . . . .	25
Cigar lighters . . . . .	2
Chestnut roasters . . . . .	1
Cigar stubs, lighted . . . . .	10
Cigarettes, lighted . . . . .	6
Defective chimneys . . . . .	14
,, ovens . . . . .	4
,, flues . . . . .	13
,, cooking ranges . . . . .	2
,, construction . . . . .	5
Drying plastering . . . . .	2
Electric light wires and currents . . . . .	23
,, motors . . . . .	4
Explosions . . . . .	2
Explosion of ammonia . . . . .	1
,, boiler blow-off . . . . .	1
,, cartridges . . . . .	1
,, gasoline stove . . . . .	1
,, a naphtha stove . . . . .	1
,, oxygen gas . . . . .	1
,, Japan varnish . . . . .	1

Explosion of whiskey . . . . .	1
,, tank . . . . .	1
,, torpedoes . . . . .	1
Fire-crackers . . . . .	8
Fireworks . . . . .	16
Friction from machinery . . . . .	2
Fumigating rooms . . . . .	5
Gas explosions . . . . .	10
,, jets, lighted . . . . .	24
,, ,, igniting curtains . . . . .	11
,, leakage . . . . .	4
,, stoves . . . . .	2
,, lamps . . . . .	2
Grass fires . . . . .	6
Incendiary . . . . .	41
,, supposed . . . . .	10
Kerosene oil, attempting to build fires with . . . . .	2
,, ,, leaking . . . . .	2
,, ,, kettle of, igniting . . . . .	1
,, ,, lanterns . . . . .	1
,, ,, lamps . . . . .	9
,, ,, lamps, igniting curtains . . . . .	6
,, ,, ,, breaking of lighted . . . . .	28
,, ,, ,, explosions of . . . . .	38
,, ,, ,, upsetting of . . . . .	29
,, ,, stoves . . . . .	20
,, ,, ,, upsetting of lighted . . . . .	2
Lighted paper . . . . .	1
Lime, slacking . . . . .	3
Lightning . . . . .	4
Matches and children . . . . .	45
,, rats and . . . . .	37
,, and curtains . . . . .	1
,, careless use of . . . . .	67
Naphtha fumes . . . . .	7
,, lamp explosion of . . . . .	1
Overheated bearings . . . . .	3
,, boilers . . . . .	3
,, dryer . . . . .	1
,, furnaces . . . . .	7
,, glue kettle . . . . .	1
,, hot-air pipes . . . . .	4
,, journals . . . . .	4
,, ovens . . . . .	5
,, stoves . . . . .	26
,, steam-pipes . . . . .	2
,, kiln . . . . .	1

Overheated smoke-stacks . . . . .	1
Peanut roasters . . . . .	1
Plumber's furnaces . . . . .	3
Painter's naphtha lamp . . . . .	1
Phosphorus . . . . .	1
Piano lamp shade . . . . .	1
Rekindling of fires . . . . .	3
Roofers' furnaces . . . . .	4
Rags in stove funnel . . . . .	1
Rubbish fires . . . . .	2
Smoky chimneys . . . . .	16
„ furnaces . . . . .	5
„ stoves . . . . .	10
Sparks from boilers . . . . .	2
„ „ chimneys . . . . .	19
„ „ forges . . . . .	12
„ „ tobacco smokers' pipes . . . . .	32
„ „ hoisting engines . . . . .	1
„ „ locomotive engines . . . . .	11
„ „ stoves . . . . .	14
„ „ bonfires . . . . .	1
„ „ adjacent fires . . . . .	1
Spontaneous combustion . . . . .	56
Stoves hot, igniting clothing . . . . .	6
„ overturned . . . . .	4
Steam escaping . . . . .	4
Tar barrel . . . . .	1
Unknown . . . . .	145
Vapor from spirits . . . . .	3
Wood drying in stove ovens . . . . .	1
Total . . . . .	1,242



Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for twelve years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured; for twelve years.

### BUILDINGS.

Year.	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co's	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	05.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	06.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	08.68	23,478.10	358,459.20	07.00
1884	3,227,819.93	189,168.83	05.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	07.22	24,240.96	246,042.71	09.85
1886	2,733,588.56	275,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	05.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85	05.07	12,302.39	240,236.25	05.12
1889	4,583,384.25	911,382.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
Tot.	\$45,583,609.15	\$3,552,169.98	6.78	\$775,298.94	\$4,327,918.93	17.91

### CONTENTS.

Year.	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co's	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$31,813.20	\$336,605.78	09.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,409.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	08.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.80	715,197.05	20.01	76,243.41	791,440.47	09.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
Tot.	\$40,428,367.78	\$10,076,171.29	24.98	\$1,566,072.77	\$11,642,244.07	13.45

### TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co's.	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance.
1881	\$3,905,227.61	\$420,404.61	16.76	\$467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,253.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.91	11.69	1,031,676.72	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,512,074.51	14.47
1892	8,481,051.58	731,948.78	8.62	846,395.12	9.97
Tot.	\$86,011,976.94	\$13,628,341.28	15.84	\$15,969,709.60	18.57

Respectfully submitted,  
EDWARD SPAULDING, *Secretary.*

SPECIAL REPORTS.

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Following instructions, Charles H. Ferrier was visited four times, his case watched and special reports submitted, as his trouble, chronic sero-synovitis, was considered to be of such a nature that it would not be just to himself or the Department for him to continue in his position. He was advised to resign.

In regard to the case of Charles Kimball, a partial report of which was submitted at the time of last report, would say that he was visited five times in addition to those already reported. He recovered completely from the injury and seemed fully satisfied with the treatment received.

In regard to the case of Patrick J. Collins, a report of which has been submitted, would say Collins was visited twice at the hospital, once at his own home, the fact that he was intoxicated at the time of the accident was established, and the story of an eye-witness obtained on the night of the accident. The extent of Collins's injury has been described in the reports referred to. No action was taken by him in regard to this matter.

The case of a member of the Department who had acute nephritis was visited personally by your medical officer eleven times and several examinations made; his improvement became so great, that with a full knowledge of his condition and the possible results of exposure, he was allowed at his own request and risk to resume work. This case has been followed from time to time with satisfactory results.

The work of the medical officer has more than doubled during the past year, due to the fact that the Department has doubled its service and the necessary examination of applicants has been demanded.

The year has been an exceptionally hard one for our Department, the exposures great, the attendant results in proportion to the risks assumed. Our members are exposed in wet clothing much longer than the members of the regular department, as the work required is such that they have from necessity to be a much longer time at nearly every fire, thus increasing the probabilities of sickness. Considering the exposure, the unusual severity of the year, we have been no more unfortunate than the causes would warrant.

Your medical officer would take this opportunity to again thank both officers and men for the ever courteous treatment which they have given him whilst in the discharge of his duties.

To the President and Superintendent his thanks are due for their ever willing assistance in making the work of the Department effective.

Respectfully submitted,

W. F. TEMPLE, M. D.

*Medical Officer, Boston Protective Department.*

## MEDICAL OFFICER'S REPORT.

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Boston, March 15, 1893.

SAMUEL ABBOTT, JR.,  
Supt. Boston Protective Dept.

Dear Sir: The third annual report of the Medical Officer for this Department is herewith respectfully submitted.

Number of applicants examined for appointment . . . .	62
Number of applicants examined for promotion . . . .	10
Number of visits made on sick or injured members . . . .	81
Number of attending physicians' reports examined . . . .	75
Number of special reports made . . . . .	5
Number of accident cases attended . . . . .	2

It may be interesting to notice which months have been busiest for this department, and therefore the following table is submitted:

Months.	Applications.	Medical Examinations.
March . . . .	11	3
April . . . .	6	3
May . . . .	7	1
June . . . .	10	3
July . . . .	2	4
August . . . .	3	3
September . . . .	3	3
October . . . .	3	6
November . . . .	8	2
December . . . .	3	2
January . . . .	10	6
February . . . .	6	12
	72	48

Of the sixty-two applications for appointment, fifteen were either rejected or postponed for the following reasons:

Apex catarrh . . . . .	1
Valvular disease of the heart . . . . .	3
Organic disease of the kidney . . . . .	1
Narrow chest and light weight . . . . .	1
Scrofulous glands . . . . .	1
Irregular pulse and anæmia . . . . .	1
Rapid pulse due to habits . . . . .	2
Gonorrhœa . . . . .	1

Over weight . . . . .	2
Heart disease and over weight . . . . .	2

Of the ten who applied for promotion, all were accepted.

The number of calls made on sick or injured members (81) were not all reported to the Superintendent, inasmuch as the cases were seen at their station while on duty, either never having reported as being sick or injured or else had returned to duty after recovery from their ailments. The plan which was adopted last year of visiting the stations from time to time has been carried out this year with advantage to the Department.

The character of the injuries sustained is shown by the following table:

Muscular strain . . . . .	5
Poisoned wound . . . . .	2
Injury to internal condyle femur . . . . .	1
Periostitis . . . . .	1
Sub acute synovitis . . . . .	1
Sprained ankle . . . . .	1
Ulcer . . . . .	1
Cellulitis of the arm . . . . .	1
Alveola abscess . . . . .	1
Operation for hemorrhoids . . . . .	1
Suppurating gland . . . . .	1
Contusions . . . . .	4
Fractured femur . . . . .	1
Incised wounds . . . . .	1
Lacerated wounds . . . . .	2

The causes for sick leave were as follows:

Lumbago . . . . .	2
Pharyngitis . . . . .	2
Enuresis . . . . .	1
Acute indigestion . . . . .	3
Diarrhœa . . . . .	2
Pericarditis . . . . .	1
Asthma . . . . .	1
Pneumonia . . . . .	1
La Grippe . . . . .	1
Sub acute gastritis . . . . .	1
Laryngitis . . . . .	3
Acute nephritis . . . . .	1
Pleurisy . . . . .	1
Typhoid fever . . . . .	1
Sub acute bronchitis . . . . .	2
Sciatica . . . . .	1
Syncope . . . . .	1

TWENTIETH  
ANNUAL REPORT

OF THE

Boston Protective Department,

FROM MARCH 1, 1893, TO MARCH 1, 1894.

---

BOSTON  
THE WILLCOX M'F'G Co.  
35 Hartford Street  
1894



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## OFFICERS.

---

*President:*

GEORGE P. FIELD.

*Vice-President:*

JAMES BRUERTON.

*Secretary-Treasurer:*

EDWARD SPAULDING.

*Directors:*

TO SERVE UNTIL MARCH, 1894.

GEORGE P. FIELD. FRANCIS H. STEVENS.  
GEORGE H. BALCH (deceased).

TO SERVE UNTIL MARCH, 1895.

ROBERT A. BOIT. ARTHUR W. POPE.  
FRED. B. CARPENTER.

TO SERVE UNTIL MARCH, 1896.

A. M. BULLARD. JAMES BRUERTON.  
A. L. BARBOUR.

## In Memoriam.

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### GEORGE HALLETT BALCH.

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The Board of Directors offer the following tribute to the memory of their late associate, George Hallett Balch:

By the death of Mr. Balch this Board loses one who was in every way worthy of our respect and regard.

He devoted himself to the duties and responsibilities of his directorship with a high sense of the trust committed to him, and by his wise counsels and earnest effort, proved a power in protecting and advancing the interest of the Department.

His manly courtesy, complete unselfishness and uncompromising honesty marked him as a man worthy of universal esteem.

His faithful, sympathetic nature, touched only by the purest and highest ambitions, was one which will ever remain to us a precious remembrance.

## REPORT OF THE DIRECTORS.

---

BOSTON, MARCH 6, 1894.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT:—

The Directors submit herewith the 20th Annual Report of the Department, with the reports of the Superintendent, Secretary, Treasurer and Medical Officer, and the usual statistical tables.

The Board recommend, first, that the active duties of the Department be continued for another year; second, that the Directors be authorized to expend for the maintenance of the Department a sum not exceeding Sixty-five Thousand Dollars (\$65,000).

For the Directors,

GEORGE P. FIELD,

*President.*

TREASURER'S  
RECEIPTS AND EXPENDITURES OF THE BOSTON

---

1894.		
March.	By Cash on hand, Balance . . . . .	\$ 9,591.89
	Balance of Assessments of January 1, 1893, col- lected . . . . .	15,250.56
	Six Months' Assessments to July 1, 1893 . . . . .	32,647.24
	Six Months' Assessments to January 1, 1894 . . . . .	28,729.91
	Interest, Eliot National Bank . . . . .	217.60
	Cash received from Watch Duty . . . . .	1,784.13
	Cash received from Sale of Horses . . . . .	164.43
	Cash received for Covers sold and damaged . . . . .	170.00
	Cash received for Tools Lost . . . . .	3.05
		<hr/>
		\$88,558.81

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NET RUNNING EXPENSES.

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March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	28,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	41,681.42
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08
March, 1893, to March, 1894 . . . . .	58,655.41

## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1894.

## To Cash paid:—

Pay-roll, Permanent force Company No. 1 . . .	\$15,781.94	
Auxiliary " " " . . .	4,590.85	
Call " " " . . .	597.14	
Permanent " " No. 2 . . .	14,084.20	
Auxiliary " " " . . .	4,505.80	
Call " " " . . .	1,016.38	
Rent and Taxes of Houses . . .	4,721.86	
Hay and Grain . . .	1,328.12	
Wagon and Harness Repairs . . .	738.12	
Horse-shoeing . . .	437.03	
Fuel . . .	790.18	
Gas . . .	579.81	
Washing . . .	606.33	
Supplies . . .	437.41	
New England Telegraph & Telephone Co. . .	200.00	
Automatic Fire Alarm & Electric Apparatus . . .	545.29	
Water Tax . . .	80.70	
Repairs and Furnishing of Houses . . .	634.63	
Purchase and Hire of Horses . . .	332.20	
Veterinary Services . . .	89.18	
Sundries . . .	309.96	
Directors' Meetings . . .	94.00	
Secretary, Treasurer and Boy . . .	2,106.00	
Medical Officer and Bills . . .	543.00	
Printing and Stationery . . .	2,113.37	
Advertising Annual Meeting . . .	62.75	
Auditor's Fees . . .	40.00	
Surety Bond . . .	75.00	
Employers' Liability . . .	688.36	
New Express Wagon . . .	235.00	
New Covers . . .	2,130.00	
		\$60,994.75
Paid for Watch Duty . . .		737.33
Rebate on Assessments . . .		31.36
Balance Due for Assessments of January 1, 1894 . . .		13,756.36
Balance Cash on Hand . . .		8,039.11
		<u>\$88,558.81</u>

E. &amp; O. E.

EDWARD SPAULDING, *Treasurer*.

Boston, March 9, 1894.

Audited and found correct to date.

P. E. EDDY,  
 EDWARD D. BLAKE, } *Auditing Committee.*

## SUPERINTENDENT'S REPORT.

HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT., No. 5 HAMILTON ST. }

BOSTON, March 1st, 1894.

TO THE PRESIDENT AND BOARD OF DIRECTORS:

*Gentlemen:* In compliance with Article IV. of By-Laws of the corporation of the Boston Protective Department, authorized by an Act entitled "An Act to incorporate the Boston Protective Department," passed March 9, 1874, amended February 4, 1879, I herewith submit the Twentieth Annual Report of operations of the Department for the year 1893, and year ending March 1, 1894.

The several tables of statistics heretofore submitted, have been extended to include the periods above mentioned; and also new tables for the years represented commencing January 1 and ending December 31, inclusive. (See Secretary's Report.)

### ORGANIZATION.

The organization of the Department continues the same as last year.

### BUILDINGS, ALARMS, FIRES, INSURANCE AND LOSS FOR 1893.

On January 1, 1893, it was ascertained by count<sup>1</sup> that there were 23,028 brick, stone, iron, &c., and 45,763 frame buildings in the City of Boston, making a total of 68,791 buildings; during the year there was 252<sup>2</sup> brick, stone, iron, &c., and 1,611 frame buildings completed. 13 brick, stone, iron, &c., and 3 frame buildings, were totally destroyed by fire, making the total number of buildings at the end of year, 23,267 brick, stone, iron, &c., and 47,371 frame; grand total, 70,638 buildings.

The total alarms during the year were 1,233, of which 1,167 were for fires; of these 500 occurred in brick, stone, iron, &c., buildings, 403 in frame buildings, and 264 outside; the number of fires to 1,000 population were 2.60.

Of these fires 761 were confined to the floor where they originated, 876 to the building where they originated, 24 extended to adjoining property, and 3 extended beyond adjoining property;

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NOTE 1. By actual count of Sanborn's map of the City of Boston.

NOTE 2. Information from Inspector of Buildings Department.



the per cent. of fires confined to buildings where they originated was 75.06.

The total loss on buildings and contents was \$5,024,765.04; total insurance \$18,380,444.12, and the total insurance loss was \$4,662,091.64; the above was divided as follows:—

Total loss on buildings . . . . .	\$1,405,048.95
Total insurance loss on buildings . . . . .	1,289,054.22
Per cent. of total loss not insured on buildings . . . . .	08.25
“ “ insurance loss on buildings, to premiums received . . . . .	104.23
Per cent. of total loss to assessors <sup>3</sup> valuation of buildings taxable . . . . .	00.48
Total loss on contents . . . . .	\$3,619,716.09
Total insurance loss on contents . . . . .	3,373,037.42
Per cent. of total loss, not insured, on contents . . . . .	06.81
“ “ insurance loss on contents, to premiums received . . . . .	159.10
Per cent. of total loss to destructible property taxed by assessors <sup>4</sup> . . . . .	05.76

The loss per capita was  $11\frac{20}{100}$  (each man, woman and child), and does not include the Marine Fire and Rent losses.

The total Marine fire loss was \$52,619.32, divided as follows:

On ships, vessels, etc., paid by insurance companies . . . . .	\$34,905.42
“ “ “ “ not insured . . . . .	2,050.00
Total loss on ships, vessels, etc. . . . .	36,955.42
“ “ “ cargoes . . . . .	15,663.90
Per cent. of total loss on ships, vessels, etc., to assessors <sup>5</sup> valuation of marine property . . . . .	22.47

The total insurance thereon was \$505,500.00.

The total Rent loss was \$127,793.41, and the total insurance thereon was \$317,591.00.

The per cent. of grade of alarms and losses for 1893 was as follows:—

44.53	had no loss.
27.74	the loss was under \$100.
13.06	“ “ from \$100 to \$500.

NOTE 3. Assessors' valuation of taxable buildings is \$290,482,100. (See City of Boston Document 3, 1894.)

NOTE 4. Assessors' valuation of destructible personal property is divided as follows:

Goods, wares and merchandise . . . . .	\$53,963,794.00
Machinery and office furniture . . . . .	5,108,366.00
Horses and vehicles . . . . .	1,914,299.00
Household furniture exceeding \$1,000 in value . . . . .	1,874,300.00
Total . . . . .	\$62,860,759.00

NOTE 5. Assessors' valuation of ships and vessels not in foreign trade, \$164,441.00.

04.05	the loss was from \$500 to \$1,000.
06.97	" " " \$1,000 to \$5,000.
01.78	" " " \$5,000 to \$10,000.
00.41	" " " \$10,000 to \$15,000.
01.46	" " " over \$15,000.

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The per cent. of causes of alarms and fires for 1893 was as follows:—

01.62	was defective buildings.
32.28	" carelessness.
03.08	" electricity.
02.03	" fireworks.
04.62	" gas.
02.60	" supposed incendiary.
14.44	" kerosene oil.
14.92	" matches.
06.41	" needless.
04.78	" sparks.
03.00	" spontaneous combustion.
01.54	" vapors igniting.
08.68	" unknown.

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The operations of the department for the year ending March 1st, 1894, are as follows:—

		Co. No. 1.	Co. No. 2.
Alarms.	{ Bell . . . . .	453	656
	{ Still . . . . .	58	92
	{ Automatic . . . . .	31	15
Responded to by	{ Wagon . . . . .	449	514
	{ Callmen . . . . .	93	249
Total Alarms	. . . . .	542	763
Hours Duty.	{ At fires . . . . .	521.30	875.15
	{ After fires protecting goods . . . . .	318.15	79.30
	{ Watch . . . . .	2,973.45	2,205.30
	{ Total . . . . .	3,813.30	3,160.15
Covers Used.	{ On goods . . . . .	2,247	1,208
	{ " protecting from storms . . . . .	231	0
	{ On roofs . . . . .	62	30
Extinguishers used	. . . . .	11	12

*Second Section (in section) Called in Service.*

First Alarm.	{ When 1st out section was at a fire . . . . .	12	19
	{ When all other sections was at a fire . . . . .	1	0
	{ When covering a company district . . . . .	1	1
Second Alarms.	{ 2d alarms . . . . .	17	15
	{ With 2d section wagon during daytime, . . . . .	1	0
Telephone calls	. . . . .	2	6
Messenger calls	. . . . .	8	1

Covering	{ when both sections of a company were		
	{ at a fire . . . . .	5	6
Auxiliary Force reporting at day fires . . . . .		5	2
“ “ retained on day duty after a fire . . . . .		9	4
“ “ “ “ “ extra hazardous			
days . . . . .		2	1
Protecting roofs . . . . .		2	0
Total . . . . .		65	55

The total number of alarms and fires was 1,189, it being 53 less than last year.

There was 1,155¾ hours' fire service, 5,179¼ hours' watch duty, and 370¼ hours' service, protecting buildings and contents from storms, equivalent to 279 days of twenty-four hours each, 9 hours and 15 minutes, it being 1 day, 6 hours and 30 minutes less, in comparison with the previous year. There was 3,455 covers used in covering goods at fires, 231 on goods and 92 on roofs, protecting the buildings and contents after fires from additional damage by storms; which makes a total of 3,778 covers used; representing 816,048 sq. feet.

Through the courtesy of the Board of Fire Commissioners of the City of Boston, this department was, November 24, 1893, assigned a "Special Call" to be adopted for the Running Card, the designating signal to be seven (7) blows.

The same friendly feeling between the Fire and this department continues to exist.

In conclusion, I desire to express my sincere thanks to all departments or persons who have in any way assisted this department during the past year.

Respectfully submitted,

SAMUEL ABBOTT, JR.,

*Superintendent.*

# Duty performed by Company No. 1, from March 1, 1893, to March 1, 1894.

Alarms responded to.						Hours on duty.			Covers spread.				Second Section of Company calls.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Months.	Bell.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	At Fires.			Extra at Fires.			Watching after Fires.			Totals.			Extinguishers used.				When 1st out-section is at a fire.						When covering a company district.		Second Alarms.		With 2d second wagon during daytime.		Telephone Calls.		Messenger Calls.		Covering when both sections of a co. are at a fire.		Reporting at a fire during the daytime A. F.		Auxiliary Force retained on duty during daytime.		Auxiliary Force on duty extra hazardous days.		Protecting Roofs.		Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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\*Company No. 2 assisted in spreading some of these covers.

Duty performed by Company No. 2, from March 1, 1893, to March 1, 1894.

Alarms responded to.						Hours on duty.				Covers spread.				Second section of Company calls.										Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Months.	Bell.	Still.	Automatic.	Wagon responded.	Callmen responded.	Total Alarms.	At Fires.			Watching after Fires.			Totals.			On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	COVERING when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. F.	Retained on duty during daytime A. F.	Extra hazardous days A. F. on duty.	Protecting Roofs.	Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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\*Company No. 1 assisted in spreading some of these covers.

## SCHEDULE OF PROPERTY

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES NOS. ONE AND  
TWO, AND IN THE OUTLYING DISTRICTS.

---

Horses . . . . .	10
Wagons "complete" . . . . .	4
Wagon supply . . . . .	1
Pungs "complete" . . . . .	1
Wagons for Superintendent . . . . .	2
Sleighs " " . . . . .	2
Rubber covers . . . . .	561
Canvas " for roofs . . . . .	4
Fire extinguishers . . . . .	8
Life-saving blankets . . . . .	4
Sets of patent double harnesses . . . . .	4
Single harnesses . . . . .	2
Wagon poles "extra" . . . . .	2
Wheels "extra" . . . . .	4
Whiffletrees "extra" . . . . .	5
Bedsteads with bedding . . . . .	49
Mantle bedsteads with bedding . . . . .	2
Billiard table "complete" . . . . .	1
Fire hats . . . . .	47
Necessary tools and equipments. .	
" stable equipments.	
" extra parts of harnesses.	
" house furniture and fixtures.	
" telegraph apparatus.	
" gas fixtures.	
" supplies.	
" stationery.	

For detailed statement, see Quarterly Report at Superintendent's Headquarters.



## OFFICE OF SECRETARY-TREASURER,

NO. 5 HAMILTON STREET,

BOSTON, March 1, 1894.

TO THE PRESIDENT AND DIRECTORS:

*Gentlemen:* — The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1893, to Dec. 31, inclusive, is as follows. The loss to companies for the year 1893 being divided, shows:—

Insurance on buildings . . . . .	\$8,047,857.57
Loss on buildings . . . . .	1,289,054.22
Insurance on contents . . . . .	10,332,586.55
Loss on contents . . . . .	3,373,037.42
Insurance on marine risks . . . . .	497,500.00
Loss on marine risks . . . . .	51,069.68
Insurance on rents . . . . .	313,091.00
Loss on rents . . . . .	132,725.69

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## CAUSES OF FIRES AND ALARMS.

MARCH 1, 1893, TO FEB. 28, 1894, INCLUSIVE.

Buildings, defective . . . . .	32
Causes not otherwise enumerated . . . . .	351
Electricity . . . . .	35
Fireworks . . . . .	26
Gas . . . . .	53
Incendiary (supposed) . . . . .	32
Kerosene oil . . . . .	172
Matches . . . . .	166
Needless . . . . .	74
Sparks . . . . .	61
Spontaneous combustion . . . . .	32
Unknown . . . . .	140
Vapors . . . . .	15
	<hr/>
	1,189



## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March, 1, 1894.

Months.	Alarms.					Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by occ.	Total.	Spread.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra Covers used.
March, 1893.	74	28	2	3	107	398	8	5	116	..	1,156	45	57	15	2
April, "	63	21	2	..	86	278	10	3	82	15	270	..	13	..	4
May, "	74	25	1	3	103	362	10	..	106	30	250	15	10	15	4
June, "	58	18	4	1	81	203	5	..	83	..	79	..	5	..	13
July, "	101	40	4	..	145	183	4	12	89	15	200	45	7	15	7
August, "	56	19	3	..	78	111	7	..	58	30	128	15	4	..	1
Sept., "	59	22	1	1	83	56	1	1	53	45	150	15	..	..	..
Oct., "	61	22	2	..	85	233	..	6	89	..	285	..	119	30	54
Nov., "	75	18	3	..	96	538	16	..	102	30	696	15	33	..	60
Dec., "	94	31	6	..	131	455	7	..	142	..	710	45	32	..	27
Jan., 1894.	77	21	3	1	102	222	13	3	121	..	565	30	7	30	10
Feb., "	74	11	6	1	92	416	11	3	112	..	686	30	81	30	49
	866	276	37	10	1189	3,455	92	23	1155	45	5,179	15	370	15	231

Comparison of Fires, Covers Spread, Fire and Watch Duty Performed for fourteen years, each year commencing March 1, and ending the last day of February.

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1,015	2,683	820	05	2,611	30
1892	1,242	2,722	1,061	00	5,554	30
1893	1,189	3,455	1,155	45	5,179	15

# MONTHLY STATEMENT

Of Insurance and Loss on Buildings, Contents, Rents, and Marine, for the year ending March 1, 1894.

Months.	Buildings.		Contents.		Losses not Insured.		Total.		Rents.		Marine.	
	Insurance.	Loss.	Insurance.	Loss.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.
March,	\$2,372,777.59	\$891,391.20	\$3,309,347.37	\$1,890,614.21	\$77,904.00	\$182,545.06	\$5,682,124.96	\$3,042,454.47	\$170,500.00	\$108,374.96	.....	.....
April,	472,306.00	19,588.46	226,100.00	32,980.30	4,525.00	3,242.83	698,406.00	60,366.59	20,000.00	433.34	150,000.00	16,063.90
May,	629,099.11	19,682.01	321,673.46	35,344.82	1,206.88	2,730.13	950,772.57	58,963.84	2,500.00	673.08	.....	.....
June,	349,120.00	11,086.02	192,169.48	15,794.63	5.00	1,008.42	541,289.48	27,934.07	3,000.00	183.41	.....	.....
July,	459,910.20	13,722.59	453,718.99	46,023.00	585.00	3,818.29	913,629.19	64,148.88	4,400.00	304.50	.....	1,000.00
Aug.,	193,877.00	5,287.75	86,975.00	12,962.30	1,220.00	2,275.00	280,852.00	19,745.05	.....	.....	.....	.....
Sept.,	393,200.00	9,966.23	49,300.00	17,690.33	225.00	2,627.43	358,500.00	30,358.99	.....	.....	.....	606.40
Oct.,	423,266.67	28,351.68	1,088,638.75	31,465.59	2,654.93	8,173.38	1,511,925.42	70,335.58	10,000.00	322.59	.....	.....
Nov.,	466,601.00	18,433.74	482,188.50	46,339.41	657.80	7,915.83	948,789.50	73,346.78	33,991.00	575.81	.....	.....
Dec.,	865,650.00	63,294.99	992,895.00	148,677.04	550.00	9,722.85	1,858,645.00	222,214.88	6,500.00	5,034.78	341,500.00	29,549.38
Jan.,	956,175.00	83,558.97	419,955.00	48,572.97	245.00	83,631.64	1,376,130.00	216,008.58	.....	.....	.....	.....
Feb.,	407,500.00	25,958.37	496,190.00	36,288.99	2,360.59	2,436.03	903,630.00	67,943.98	7,500.00	unsettled	.....	.....
	7,905,482.57	1,190,302.01	8,119,171.55	2,362,693.59	92,039.20	308,086.89	16,024,654.12	3,953,121.69	258,391.00	115,902.47	491,500.00	47,219.68

Comparison of Insurance and Losses for Fourteen Years, each year commencing March 1st, and ending the last day of February.

Year.	Insurance.		Total Loss.		Loss not insured.	
1880	.....	.....	.....	.....	.....	.....
1881	.....	.....	.....	.....	.....	.....
1882	.....	.....	.....	.....	.....	.....
1883	.....	.....	.....	.....	.....	.....
1884	.....	.....	.....	.....	.....	.....
1885	.....	.....	.....	.....	.....	.....
1886	.....	.....	.....	.....	.....	.....
1887	.....	.....	.....	.....	.....	.....
1888	.....	.....	.....	.....	.....	.....
1889	.....	.....	.....	.....	.....	.....
1890	.....	.....	.....	.....	.....	.....
1891	.....	.....	.....	.....	.....	.....
1892	.....	.....	.....	.....	.....	.....
1893	.....	.....	.....	.....	.....	.....

## FIRES AND ALARMS.

BY MONTHS, DAYS OF THE WEEK, DAYS OF THE MONTH, AND HOURS OF  
THE DAY, FROM MARCH 1, 1893, TO MARCH 1, 1894.

Months.		Days of Week.		Days of the Month.		Hours of the Day.	
				1	36	6 to 7 A. M.	33
March, 1893.	107	Monday . .	143	2	49	7 " 8 "	27
April "	86	Tuesday .	201	3	40	8 " 9 "	41
May, "	103	Wednesday	199	4	52	9 " 10 "	49
June, "	81	Thursday .	171	5	45	10 " 11 "	66
July, "	145	Friday . .	157	6	42	11 " 12 NOON.	42
August, "	78	Saturday .	155	7	35	12 " 1 P. M.	62
September, "	83	Sunday . .	163	8	34	1 " 2 "	35
October, "	85			9	44	2 " 3 "	42
November, "	96			10	37	3 " 4 "	53
December, "	131			11	41	4 " 5 "	67
January, 1894.	102			12	49	5 " 6 "	71
February, "	92			13	42	6 " 7 "	80
				14	51	7 " 8 "	80
				15	43	8 " 9 "	100
				16	35	9 " 10 "	71
				17	37	10 " 11 "	58
				18	25	11 " 12 MIDN.	42
				19	38	12 " 1 A. M.	45
				20	32	1 " 2 "	26
				21	33	2 " 3 "	26
				22	37	3 " 4 "	35
				23	31	4 " 5 "	20
				24	30	5 " 6 "	18
				25	42		
				26	34		
				27	47		
				28	32		
				29	38		
				30	24		
				31	34		
Totals,	1189		1189		1189		1189

## DISTRICTS WHERE ALARMS WERE GIVEN.

City Proper	.	.	.	.	.	.	.	626
Boston Highlands District	.	.	.	.	.	.	.	120
Charlestown	.	.	.	.	.	.	.	107
East Boston	.	.	.	.	.	.	.	75
South Boston	.	.	.	.	.	.	.	58
Dorchester	.	.	.	.	.	.	.	60
West Roxbury	.	.	.	.	.	.	.	22
Brighton	.	.	.	.	.	.	.	121
Total	.	.	.	.	.	.	.	1189

## CLASSIFICATION OF COVERS SPREAD.

41 Fires of 1 Cover each . . . . .	41	1 Fire of 29 Covers each . . . . .	29
33 " " 2 Covers " . . . . .	66	1 " " 30 " " . . . . .	30
22 " " 3 " " . . . . .	66	1 " " 31 " " . . . . .	31
11 " " 4 " " . . . . .	44	2 " " 32 " " . . . . .	64
13 " " 5 " " . . . . .	65	1 " " 35 " " . . . . .	35
7 " " 6 " " . . . . .	42	2 " " 39 " " . . . . .	78
7 " " 7 " " . . . . .	49	1 " " 41 " " . . . . .	41
5 " " 8 " " . . . . .	40	1 " " 44 " " . . . . .	44
3 " " 9 " " . . . . .	27	1 " " 49 " " . . . . .	49
9 " " 10 " " . . . . .	90	1 " " 51 " " . . . . .	51
4 " " 11 " " . . . . .	44	1 " " 52 " " . . . . .	52
3 " " 12 " " . . . . .	36	1 " " 54 " " . . . . .	54
2 " " 14 " " . . . . .	28	1 " " 55 " " . . . . .	55
2 " " 15 " " . . . . .	30	1 " " 56 " " . . . . .	56
6 " " 16 " " . . . . .	96	1 " " 62 " " . . . . .	62
2 " " 17 " " . . . . .	34	1 " " 73 " " . . . . .	73
1 " " 18 " " . . . . .	18	2 " " 75 " " . . . . .	150
1 " " 19 " " . . . . .	19	1 " " 77 " " . . . . .	77
1 " " 20 " " . . . . .	20	1 " " 79 " " . . . . .	79
5 " " 21 " " . . . . .	105	1 " " 81 " " . . . . .	81
2 " " 22 " " . . . . .	44	1 " " 88 " " . . . . .	88
1 " " 23 " " . . . . .	23	1 " " 94 " " . . . . .	94
3 " " 24 " " . . . . .	72	1 " " 100 " " . . . . .	100
5 " " 25 " " . . . . .	125	1 " " 101 " " . . . . .	101
1 " " 26 " " . . . . .	26	1 " " 123 " " . . . . .	123
2 " " 27 " " . . . . .	54	1 " " 173 " " . . . . .	173
2 " " 28 " " . . . . .	56	1 " " 225 " " . . . . .	225

Total Fires . . . . . 224

Total Covers . . . . . 3,455

224 Fires, 3,455 Covers. Average,  $15\frac{42}{100}$ .

## COVERS.

On hand last report . . . . .	394
Received . . . . .	200
Condemned and destroyed . . . . .	594
	33
Total covers on hand March 1, 1894 . . . . .	561

## GRADE OF LOSSES.

Grade of Losses for the year 1893, commencing January 1st, and ending December 31st.

		Aggregate.	Average.
549	Fires with no loss.		
342	" " loss under \$100 . . . . .	\$12,258.42	\$ 35.84
161	" " " from \$100 to \$500 . . . . .	39,002.79	242.25
50	" " " " \$500 to \$1,000 . . . . .	33,156.89	663.14
86	" " " " \$1,000 to \$5,000 . . . . .	182,122.26	2,117.70
22	" " " " \$5,000 to \$10,000 . . . . .	151,561.36	6,889.15
5	" " " " \$10,000 to \$15,000 . . . . .	63,546.43	12,709.25
	Over \$15,000 as follows:		
1	Fire Jan. 10, 207 Federal St., J. H. Hecht, <i>et al.</i> . . . .	998,310.00	\$4,643,116.39
1	" " 11, 109 Purchase St., F. L. Young, <i>et al.</i> . . . .	21,773.57	
1	" " 17, 271 Franklin St., Ashton Valve Co., <i>et al.</i> . . . .	38,844.56	
1	" " 25, 31 Union St., Walker, Pratt & Co., <i>et al.</i> . . . .	52,911.89	
1	" Feb. 7, 275 Congress St., Simons, Hatch & Whitten, <i>et al.</i> . . . .	103,282.85	
1	" " 9, 361 Atlantic Ave., T. Remick & Co., <i>et al.</i> . . . .	31,072.71	
1	" " 22, Fiske's Wharf, Pearson Cordage Co., <i>et al.</i> . . . .	18,790.19	
1	" Mar. 10, 63 Lincoln St., H. Partridge & Co., <i>et al.</i> . . . .	2,831,487.36	
1	" " 19, 76 Tremont St., Tremont Temple, <i>et al.</i> . . . .	175,243.04	
1	" May 8, 161 Fort Hill Sq., W. Jessop & Sons, <i>et al.</i> . . . .	24,739.54	
1	" July 15, 1 Commercial St., H. Callendar & Co., <i>et al.</i> . . . .	24,872.60	
1	" Oct. 10, 116 Merrimac St., J. H. Roberts & Co., <i>et al.</i> . . . .	19,700.26	
1	" " 24, 91 Causeway St., Derby, Kilmer & Pond Co., <i>et al.</i> . . . .	15,478.39	
1	" Nov. 8, Constitution Wharf, National Cordage Co., <i>et al.</i> . . . .	17,174.69	
1	" Dec. 5, 154 Boylston St., Murdoch Parlor Gate Co., <i>et al.</i> . . . .	27,784.00	
1	" " 19, 80 So. Market St., Green & Co., <i>et al.</i> . . . .	23,155.52	
1	" " 22, 82 Canal St., Levi Boles & Son, <i>et al.</i> . . . .	77,268.53	
1	" " 30, 84 Federal St., J. A. Hearn & Co., <i>et al.</i> . . . .	41,227.10	
	Marine losses (see tables)		252,395.38
1233		\$5,024,765.04	51,069.68

The 684 fires where there was a loss, the average was \$7,346.15.

The co-insurance loss on buildings was \$ 1,267.73.

" " " " contents " 25,974.38.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for thirteen years, commencing January 1, 1881.

Year.	Total Fires.	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average Loss of Total Fires with Loss.
1881	558	344	\$ 467,105.28	\$ 837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,879.62	6,103.15	9,756.84
1890	933	562	1,088,887.29	1,167.08	1,937.52
1891	980	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	718	846,395.12	708.70	1,178.82
1893	1,234	684	5,024,765.04	2,654.39	7,346.14
Total	10,395	6,365	\$20,995,360.45	\$2,019.75	\$3,298.56

## CAUSES OF FIRES AND ALARMS.

---

Alarms, false . . . . .	33
"    needless . . . . .	74
Ashes, hot in wooden receptacles . . . . .	21
Assistance, calls for . . . . .	2
Attempting to thaw frozen water pipes . . . . .	15
Awning fires . . . . .	6
Back draft . . . . .	2
Benzine vapor . . . . .	7
Boiling over of a kettle of chemicals . . . . .	2
"    "    "    "    "    fat . . . . .	6
"    "    "    "    "    oil . . . . .	2
"    "    "    "    "    tar . . . . .	4
"    "    "    "    "    wax . . . . .	1
Bonfires . . . . .	13
Boys, set by . . . . .	23
Brush fires . . . . .	14
Bursting of water backs . . . . .	2
"    "    steam pipes . . . . .	2
Candle lighted . . . . .	12
Camphor explosion . . . . .	1
Chimney fires . . . . .	22
Cigar stubs, lighted . . . . .	11
Cigarettes, lighted . . . . .	5
Defective chimneys . . . . .	11
"    furnaces . . . . .	6
"    flues . . . . .	11
"    construction . . . . .	4
Electric light wires and currents . . . . .	31
"    motors . . . . .	4
Explosion of malt mill . . . . .	1
"    "    gasoline stoves . . . . .	3
"    "    chemist's retort . . . . .	1
"    "    gun powder . . . . .	1
"    in a stove . . . . .	1
Firecrackers . . . . .	24
Fireworks . . . . .	2
Friction from machinery . . . . .	2
Fumigating rooms . . . . .	1
Gas explosions . . . . .	3
"    jets, lighted . . . . .	16
"    "    "    igniting curtains . . . . .	26



Gas leakage . . . . .	10
“ stoves . . . . .	2
Gasoline vapor . . . . .	7
Grass fires . . . . .	6
Hot flask . . . . .	1
“ coals . . . . .	1
Incendiary . . . . .	16
“ supposed . . . . .	16
Kerosene oil, attempting to build fires with	4
“ “ explosion . . . . .	4
“ “ leakage . . . . .	1
“ “ kettle of, igniting . . . . .	4
“ “ lanterns . . . . .	1
“ “ lamps . . . . .	13
“ “ lamps, igniting curtains . . . . .	3
“ “ “ breaking or upsetting of lighted . . . . .	69
“ “ “ explosions of . . . . .	51
“ “ stoves . . . . .	23
Lime, slacking . . . . .	3
Lightning . . . . .	8
Manure, overheating . . . . .	1
Matches and children . . . . .	45
“ rats and . . . . .	48
“ careless use of . . . . .	73
Naphtha fumes . . . . .	5
Overheated boilers . . . . .	5
“ dryer . . . . .	1
“ furnaces . . . . .	13
“ hot-air pipes . . . . .	8
“ journals . . . . .	1
“ ovens . . . . .	5
“ stoves . . . . .	24
“ steam-pipes . . . . .	2
“ kiln . . . . .	1
Picking machine . . . . .	2
Plumbers' furnaces . . . . .	3
Phosphorus . . . . .	1
Rekindling of fires . . . . .	2
Roofer's furnace . . . . .	1
Rubbish fires . . . . .	2
Smoky chimneys . . . . .	21
“ stoves . . . . .	5
Soot, burning . . . . .	3
Sparks from boilers . . . . .	5
“ “ chimneys . . . . .	19
“ “ coffee roaster . . . . .	1
“ “ forges . . . . .	4
“ “ tobacco smokers' pipes . . . . .	17





Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for thirteen years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured for thirteen years.

## BUILDINGS.

Year	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	05.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	06.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	08.68	23,478.10	358,459.20	07.00
1884	3,227,819.93	189,168.83	05.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	07.22	24,240.96	246,042.71	09.85
1886	2,733,588.56	275,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	05.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85	05.07	12,302.39	240,236.25	05.12
1889	4,583,384.25	911,382.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
1893	8,047,857.57	1,289,054.22	16.02	115,994.73	1,405,048.95	8.26
Tot.	\$53,631,466.72	\$4,841,224.20	9.03	\$891,293.67	\$5,732,967.88	15.54

## CONTENTS.

Year	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$ 31,813.20	\$336,605.78	09.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,409.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	08.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.13
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.80	715,197.05	20.01	76,243.41	791,440.47	09.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
1893	10,332,586.55	3,373,037.42	32.64	246,678.67	3,619,716.09	6.82
Tot.	\$50,760,954.33	\$13,449,208.71	26.49	\$1,812,751.44	\$15,261,960.16	11.08

## TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co.'s	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance
1881	\$3,905,227.61	\$ 420,404.61	16.76	\$ 467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.13	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,253.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.91	11.69	1,031,676.72	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,512,074.51	14.47
1892	8,481,051.58	731,948.78	8.62	846,395.12	9.97
1893	18,380,444.12	4,662,091.64	25.36	5,024,765.04	27.32
Tot.	\$104,392,421.06	\$18,290,432.92	17.52	\$20,994,474.64	20.01

Respectfully submitted,

EDWARD SPAULDING, *Secretary.*

# STATISTICS OF ALARMS AND FIRES FOR THREE YEARS.

Year	Area Sq. Mile.	Popu- lation Census 1890.	Number of Buildings in the City, &c.										Number of Alarms and Fires.									
			Brick, &c., Buildings last Report.	New Brick Build- ings Completed.	Brick Buildings Totally Destroyed.	Total Brick Build- ings.	Frame Buildings last Report.	Frame Buildings Completed (New).	Frame Buildings Totally Destroyed.	Total Frame Buildings.	Grand Total Brick and Frame Buildings.	Total Alarms.	Brick, Iron, &c.	Frame.	Outside.	Total Fires.	Confined to floor originated.	Confined to Build- ing originated.	Extended to Ad- joining Property.	Extended beyond Adjoining Prop'y.		
1891	37.06	448,477	22,700	329	1	22,700	43,800		43,800	68,500	980	424	389	87	900	730	780	32	1			
1892	"	"	22,028	252	13	23,028	45,763	1964	45,763	68,791	1196	510	495	89	1094	955	966	38	1			
1893	"	"	23,028			23,267	45,763	1611	47,371	70,638	1233	500	403	264	1167	761	876	24	3			

Marine Fire Loss and Insurance.										Rents, Fire Loss and Ins.		
Total Loss thereon.	Total Insur- ance thereon.	No. of Fires to 1000 Population.	Per cent. of Fires confined to Build- ing.	Loss Per Capita.	Total Loss thereon.	Total Insur- ance thereon.	Total Insur- ance Loss thereon.	Total Insur- ance there- on.	Total Insur- ance there- on.	Total Loss thereon.	Total Insur- ance there- on.	Total Insur- ance there- on.
\$1,512,074.51	\$10,447,876.87	2.00	.85	\$ 3.37	\$1,388,877.43	\$1,388,877.43	\$1,388,877.43	\$ 3.37	\$ 1,208.12	\$ 5,325.31	\$ 56,100.00	\$ 56,100.00
846,395.12	8,481,051.58	2.44	.88	1.89	731,948.78	731,948.78	731,948.78	1.89	25,057.81	2,016.14	98,000.00	98,000.00
5,024,765.04	18,380,444.12	2.60	.75	11.20	4,662,091.64	4,662,091.64	4,662,091.64	11.20	50,569.32	127,793.41	317,591.00	317,591.00

\*Rent Loss of Fire 569 Washington Street, May 30, 1892, not settled ; in litigation.

## MEDICAL OFFICER'S REPORT.

SAMUEL ABBOTT, JR.,

*Supt. Boston Protective Dept.*

*Dear Sir:* The fourth annual report of the Medical Officer for this Department is herewith tendered.

Number of applicants examined for appointment	46
Number of applicants examined for promotion	22
Number of visits on sick or injured members	90
Number of attending physician's reports examined	80
Number of special reports made	2
Number of accident cases attended	0

The following table shows the number of reports returned for each month:

Months.	Applicants Examined.	Medical Reports.
March	7	3
April	5	4
May	1	4
June	3	3
July	3	8
August	0	1
September	4	2
October	11	7
November	5	4
December	5	7
January	22	6
February	2	4
	68	53

Of the forty-six applicants for appointment eleven were rejected for the following reasons:

Excessive use of liquor	1
Over weight	1
Anæmia and irregularity of heart's action	1
Gonorrhœa	2
Valvular disease of the heart	2
Hernia { umbilical } and valvular disease of heart	1
{ inguinal }	
Psoriasis	1
Rapid pulse and low sp. gr. of urine (1008)	1
Very defective vision	1

Of the twenty-two applicants for promotion one was not recommended for the following reason: There was a marked right inguinal hernia (rupture) which had occurred during the interval of his first examination and his application for promotion.

The number of visits on sick or injured members (90) were not all reported to the Superintendent, as many cases were seen either at the stations or at my office, whilst on duty, and never reported as being sick, or after they had returned to duty were seen from time to time.

One new feature has been introduced this year, namely the requiring of a certificate from the medical officer in each case where a member has been on sick leave, stating that in the opinion of your medical officer the member is able to do duty.

Below is given in tabulated form the character of injuries sustained:

Contusion of muscles of back	2
Cellulitis of hand and arm	3
Muscular strain	2
Contusion of knee	2
Lacerated wound of chin	1
Rupture of frenum	1
Lacerated wound of hand	1
Sprain of ankle	2
Sprain of wrist	1
Lacerated wound of thigh	1
Contusion of testicle	1
Contusion of thigh	1
Synovitis of knee	1
Epididimites	2
Contusion of foot	2
Perineal abscess	1
Fracture humerus and injury to elbow	1

The summary of causes for sick leave is as follows:

Gastritis	2
La Grippe	4
Sub Acute Bronchitis	4
Pharyngitis	2
Syncope due to excessive use of tobacco	1
Laryngitis (Tubercella?)	1
Typhoid fever	1
Cystitis	1
Gravel	1
Gastro intestinal catarrh	1
Abdominal neuralgia	1
Nervous dyspepsia	1
Laryngitis	2
Pharyngitis and laryngitis	1
Pneumonia	1
False report (not sick)	1

SPECIAL REPORTS.

---

On June 6, Dr. W. N. Bullard saw Mr. William F. Johnson with me, and a special report was forwarded in regard to his case. There have been three special reports in regard to Mr. D. R. Dearing, in which your medical officer's opinion has been asked for and report has been forwarded.

The work in this Department has increased somewhat in the year just passed over previous ones, as there is more of a tendency to change than before the Auxiliary Department was established, requiring more examinations, but allowing the trial of men by actual service before appointment to the regular service.

Our men have passed through the year with less sickness or severe injury than during last year. The members of the Department, both officers and men, have done all in their power to make the work of the Medical Officer in the discharge of his duties a pleasure, having been uniformly courteous and polite. To the President, Superintendent and Secretary my thanks are due for many suggestions, and aid which has always been most cheerfully given.

Respectfully submitted,

W. F. TEMPLE, M. D.

*Medical Officer Boston Protective Department.*



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TWENTY-FIRST

ANNUAL REPORT

OF THE

Boston Protective Department,

From March 1, 1894, to March 1, 1895.





TWENTY-FIRST

ANNUAL REPORT

OF THE

*Boston Protective Department,*

From March 1, 1894, to March 1, 1895.



## OFFICERS.

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*President :*

JAMES BRUERTON.

*Vice-President :*

FRED B. CARPENTER.

*Secretary-Treasurer :*

EDWARD SPAULDING.

*Directors :*

TO SERVE UNTIL MARCH, 1895.

ROBERT A. BOIT.

ARTHUR W. POPE.

FRED. B. CARPENTER.

TO SERVE UNTIL MARCH, 1896.

A. M. BULLARD.

JAMES BRUERTON.

A. L. BARBOUR.

TO SERVE UNTIL MARCH, 1897.

E. E. PATRIDGE.

T. T. SAWYER, JR.

T. L. O'BRIEN.



BOSTON, March 13th, 1895.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT :—

The Directors submit herewith the 21st Annual Report of the Department, with the reports of the Superintendent, Secretary, Treasurer and Medical Officer, and the usual statistical tables.

The Board recommend, first, that the active duties of the Department be continued for another year; second, that the Directors be authorized to expend for the maintenance of the Department a sum not exceeding Sixty-five Thousand Dollars.

For the Directors,

JAMES BRUERTON,

*President.*

# TREASURER'S RECEIPTS AND EXPENDITURES OF THE BOSTON

1895.		
March.	By Cash on hand, Balance . . . . .	\$ 8,039.11
	Balance of Assessments of January 1, 1894, collected . . . . .	18,756.36
	Six Months' Assessments to July 1, 1894 . . . . .	30,566.18
	Six Months' Assessments to January 1, 1895 . . . . .	27,839.00
	Interest, Eliot National Bank . . . . .	263.24
	Cash received for Watch Duty . . . . .	1,393.72
	Cash received for Tools Lost . . . . .	10.70
	Cash received for Telephone Credit . . . . .	26.66
	Cash received for Covers Sold . . . . .	10.00
		<hr/>
		\$86,904.97

## NET RUNNING EXPENSES.

March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.46
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	28,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	51,681.42
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08
March, 1893, to March, 1894 . . . . .	58,655.41
March, 1894, to March, 1895 . . . . .	56,125.42



## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1895.

## To Cash paid:—

Pay-roll, Permanent force Company No. 1 . . .	\$14,991.98	
Auxiliary " " " . . .	4,667.06	
Call " " " . . .	613.76	
Permanent " " No. 2 . . .	14,224.66	
Auxiliary " " " . . .	4,623.51	
Call " " " . . .	946.38	
Secretary, Treasurer and Boy . . .	2,377.00	
Medical Officer and Bills . . .	516.50	
Rent and Taxes of Houses . . .	4,792.56	
Hay and Grain . . .	1,138.51	
Wagon and Harness Repairs . . .	954.64	
Horse shoeing . . .	409.53	
Fuel . . .	491.63	
Gas . . .	471.20	
Washing . . .	572.08	
Supplies . . .	277.34	
New England Telegraph & Telephone Co. . .	160.00	
Automatic Fire Alarm & Electric Apparatus . . .	118.83	
Water Tax . . .	105.90	
Repairs and Furnishing of Houses . . .	542.76	
Purchase and Hire of Horses . . .		
Veterinary Services . . .	26.87	
Sundries . . .	174.05	
Directors' Meetings . . .	100.00	
Printing and Stationery . . .	1,897.60	
Advertising Annual Meeting . . .	61.00	
Auditor's Fees . . .	60.00	
Surety Bond . . .	75.00	
Employers' Liability . . .	420.00	
New Department Wagon . . .	775.00	
Funeral Expenses, Capt. Dearing and Leighton . . .	61.74	
Collision Damages . . .	8.00	
National Fire Engineers' Convention . . .	50.38	
Entertaining National Board of Engineers . . .	133.90	
		\$56,839.98
Paid for Watch Duty . . .		660.80
Rebate on Assessments . . .		467.36
Balance Due for Assessments of January 1, 1894 . . .		19,090.18
Balance Cash on Hand . . .		9,846.65
		<u>\$86,904.97</u>

E. &amp; O. E.

EDWARD SPAULDING, *Treasurer.*

BOSTON, March '13, 1895.

Audited and found correct to date.

P. E. EDDY,	} <i>Auditing Committee.</i>
F. W. PORTER,	
EDWARD D. BLAKE,	

## SUPERINTENDENT'S REPORT.

HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT., No. 5 HAMILTON St. }

BOSTON, March 1st, 1895.

TO THE PRESIDENT AND BOARD OF DIRECTORS:

*Gentlemen:* In compliance with Article IV. of By-Laws of the corporation of the Boston Protective Department, authorized by an Act entitled "An Act to incorporate the Boston Protective Department," passed March 9, 1874, amended February 4, 1879, I herewith submit the Twenty-first Annual Report of operations of the Department for the year 1894, and year ending March 1, 1895.

The several tables of statistics heretofore submitted, have been extended to include the periods above mentioned; and also new tables for the years represented commencing January 1 and ending December 31, inclusive. (See Secretary's Report.)

### ORGANIZATION.

The organization of the Department continues the same as last year.

#### BUILDINGS, ALARMS, FIRES, INSURANCE AND LOSS FOR 1893.

On January 1, 1894, there were 23,267 brick, stone, iron, etc., and 47,371 frame buildings in the City of Boston, making a total of 70,638 buildings; during the year there were 398\* brick, stone, iron, etc., and 1717\* frame buildings completed. 12 brick, stone, iron, etc., and 100 frame buildings, were totally destroyed by fire, making the total number of buildings at the end of year, 23,653 brick, stone, iron, etc., and 48,988 frame; grand total, 72,641 buildings.

The total alarms during the year were 1,233, of which 1052 were for fires; of these 477 occurred in brick, stone, iron, etc., buildings, 460 in frame buildings, and 115 outside; the number of fires to 1,000 population were 2.35.

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\*Information from Inspection of Buildings Department of City of Boston.

NOTE. At the Base-Ball Ground fire. May 15, 1894, 98 frame and 12 brick buildings were totally destroyed, and 30 brick and 76 frame buildings partially damaged. Total, 216 buildings.

Of these fires 777 were confined to the floor where they originated, 897 to the building where they originated, 37 extended to adjoining property, and 3 extended beyond adjoining property; the per cent. of fires confined to buildings where they originated was 85.00.

The total loss on buildings and contents was \$1,726,627.56; total insurance \$10,742,621.75, and the total insurance loss was \$1,306,821.42; the above was divided as follows:—

Total loss on buildings . . . . .	\$873,159.73
Total insurance loss on buildings . . . . .	6,849,379.33
Per cent. of total loss not insured on buildings . . . . .	27.05
Total loss on contents . . . . .	\$853,467.83
Total insurance loss on contents . . . . .	3,893,242.42
Per cent. of total loss, not insured, on contents . . . . .	21.51

The loss per capita was  $3\frac{8}{10}\%$ , which does not include the Marine Fire and Rent losses.

The total Marine fire loss was \$350.00.

On ships, vessels, etc., paid by insurance companies . . . . . \$350.00

The total insurance thereon was \$4000.00.

The total Rent loss was \$4,651.95, and the total insurance thereon was \$30,940.00.

The per cent. of grade of alarms and losses for 1894 were as follows:—

42.09 had no loss.

26.84 the loss was under \$100.

16.38 the loss was from \$100 to \$500.

04.87 the loss was from \$500 to \$1,000.

06.73 " " " \$1,000 to \$5,000.

01.30 " " " \$5,000 to \$10,000.

00.65 " " " \$10,000 to \$15,000.

01.14 " " " over \$15,000.

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100

The per cent. of causes of alarms and fires for 1894 were as follows:—

00.86 was ashes in wooden receptacles hot.

02.59 " defective buildings.

20.61 " carelessness not otherwise enumerated.

02.74 " electricity.

02.35 " fireworks.

06.03 " gas.

04.62 " supposed incendiary.

10.50 " kerosene oil.

13.72 " matches.

07.92 " needless.

05.41 " overheating.

06.11 " sparks

02.90 was spontaneous combustion.  
 01.88 " vapors igniting.  
 10.11 " unknown.  
 01.65 " water pipes, attempting to thaw.

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 100

The operations of the department for the year ending March 1st, 1895, are as follows:—

		Co. No 1.	Co. No. 2.
Alarms.	{ Bell . . . . .	407	721
	{ Still . . . . .	61	87
	{ Automatic . . . . .	33	17
Responded to by	{ Wagon . . . . .	400	521
	{ Callmen . . . . .	160	298
Total Alarms		501	825
Hours Duty	{ At fires . . . . .	355.51	759.07
	{ After fires protecting goods . . . . .	194.51	77.28
	{ Watch . . . . .	1,750.20	3,700.19
	{ Total . . . . .	2,301.02	4,536.54
Covers Used.	{ On goods . . . . .	1,587	1,193
	{ " protecting from storms . . . . .	69	0
	{ On roofs . . . . .	30	91
Extinguishers used		20	19

*Second Section (in section) Called in Service.*

First Alarm.	{ When 1st out section was at a fire . . . . .	7	14
	{ When all other sections was at a fire . . . . .	0	1
	{ When covering a company district . . . . .	2	3
Second Alarms.	{ 2d alarms . . . . .	14	11
	{ With 2d section wagon during daytime . . . . .	0	1
Telephone calls		4	7
Messenger calls		4	2
Covering	{ when both sections of a company were at a fire . . . . .	9	5
	{ Auxiliary Force retained on day duty after a fire . . . . .	3	2
" " " " " extra hazardous days . . . . .		2	1
Protecting roofs . . . . .		3	3
Total		48	50

The total number of alarms and fires was 1,276, it being 53 less than last year.

There were 967 $\frac{2}{3}$  hours' fire service, 5,686 hours' watch duty, and 275 $\frac{1}{2}$  hours' service, protecting buildings and contents from storms, equivalent to 288 days of twenty-four hours each, 15 hours and 35 minutes, it being 9 days, 6 hours and 20 minutes more, in comparison with the previous year. There were 2,730 covers used in covering goods at fires, 68 on goods and 98 on roofs, protecting the buildings and contents after fires from additional damage by storms; which makes a total of 2,896 covers used; representing 625,536 square feet.

The following is a review of alarms and fires in Districts, Hours of Day, Days of Week, and Causes of same, insurance and loss for fourteen years from 1881 to 1894 inclusive; commencing March 1, and ending the last day of February of each year.

	DISTRICTS.	(Exhibit A)		
City Proper . . . . .	6,200	or	52.81	per cent
Roxbury . . . . .	1,196	"	10.19	" "
Charlestown . . . . .	979	"	08.34	" "
South Boston . . . . .	967	"	08.24	" "
East Boston . . . . .	789	"	06.72	" "
Dorchester . . . . .	647	"	05.51	" "
West Roxbury . . . . .	529	"	04.51	" "
Brighton . . . . .	400	"	03.41	" "
Assistance rendered . . . . .	32	"	00.27	" "
	11,739		100.	" "

#### HOURS IN DAY WHEN ALARMS WERE RECEIVED. (Exhibit B.)

Day-Time.	6 to 7 A. M. . . . .	220	2,236	19.05 per cent.
	7 to 8 " . . . . .	287		
	8 to 9 " . . . . .	372		
	9 to 10 " . . . . .	419		
	10 to 11 " . . . . .	474		
	11 to 12 NOON. . . . .	464	3,277	27.91 per cent.
	12 to 1 P. M. . . . .	483		
	1 to 2 " . . . . .	466		
	2 to 3 " . . . . .	486		
	3 to 4 " . . . . .	534		
	4 to 5 " . . . . .	600	4,350	37.06 per cent.
	5 to 6 " . . . . .	708		
Night-Time.	6 to 7 " . . . . .	775		
	7 to 8 " . . . . .	880		
	8 to 9 " . . . . .	888		
	9 to 10 " . . . . .	715		
	10 to 11 " . . . . .	622		
	11 to 12 MIDNIGHT . . . . .	470	1,876	15.98 per cent.
	12 to 1 A. M. . . . .	419		
	1 to 2 " . . . . .	379		
	2 to 3 " . . . . .	312	1,876	15.98 per cent.
	3 to 4 " . . . . .	302		
	4 to 5 " . . . . .	249		
	5 to 6 " . . . . .	215	11,739	100. per cent.
	Total			

65 per cent. of alarms and fires have occurred between the hours of 12 o'clock noon and 12 o'clock midnight; the greatest number occurring from 8 to 9 o'clock P. M., increasing from 6 o'clock A. M. to 8 o'clock A. M., and decreasing from 9 o'clock P. M. to 6 o'clock A. M.

	DAYS OF WEEK.	(Exhibit C)
Mondays . . . . .	1,616	13.77 per cent
Tuesdays . . . . .	1,724	14.69 " "
Wednesdays . . . . .	1,810	15.42 " "
Thursdays . . . . .	1,691	14.40 " "
Fridays . . . . .	1,711	14.57 " "
Saturdays . . . . .	1,738	14.81 " "
Sundays . . . . .	1,449	12.34 " "
Total	11,739	100. " "

	CAUSES OF ALARMS AND FIRES.	(Exhibit D)
Ashes; in wooden receptacles hot . . . . .	163	01.39 per cent
Buildings, defective . . . . .	363	03.09 " "
Causes not otherwise enumerated . . . . .	2,376	20.24 " "
Combustion, spontaneous . . . . .	410	03.49 " "
Electricity . . . . .	161	01.37 " "
Fireworks . . . . .	234	02.00 " "
Gas . . . . .	494	04.21 " "
Incendiary, supposed . . . . .	646	05.50 " "
Kerosene oil . . . . .	1,265	10.78 " "
Matches . . . . .	1,551	13.21 " "
Needless . . . . .	918	07.82 " "
Over heating . . . . .	635	05.41 " "
Sparks . . . . .	621	05.29 " "
Unknown . . . . .	1,592	13.56 " "
Vapors, igniting . . . . .	149	01.27 " "
Water pipes, attempting to thaw out . . . . .	161	01.37 " "
Total	11,739	100. " "

	INSURANCE AND LOSS.	(Page 19)
Total insurance . . . . .		\$115,964,189.67
" loss . . . . .		22,865,605.70
Loss not insured . . . . .		2,983,766.30
Per cent of total loss not insured . . . . .		13.05

The following is a review of grade of losses for fourteen years, each year commencing January 1 and ending December 31,

	(Exhibit E.)
No loss . . . . .	4583 39.31 per cent.
Under \$100 . . . . .	3249 27.87 " "
\$100 to \$500 . . . . .	1806 15.49 " "
\$500 to \$1,000 . . . . .	620 05.32 " "
\$1,000 to \$5,000 . . . . .	921 07.90 " "
\$5,000 to \$10,000 . . . . .	206 01.76 " "
\$10,000 to \$15,000 . . . . .	84 00.72 " "
Over \$15,000 . . . . .	190 01.63 " "
Total . . . . .	11,659 100.00 per cent.



60.69 per cent. of all alarms were for fires with a loss; the average loss for each fire was \$3,152.03.

## INSURANCE AND LOSS.

(Page 25.)

Insurance on buildings . . . . .	\$60,480,846.05
Total loss " " . . . . .	6,606,127.61
Loss on buildings not insured . . . . .	1,127,489.08
Percentage of loss not insured . . . . .	17.06
Insurance on contents . . . . .	\$54,654,196.75
Total loss " " . . . . .	16,115,427.99
Loss on contents, not insured . . . . .	1,996,362.17
Per cent. of loss not insured . . . . .	12.31
Total insurance on buildings and contents . . . . .	\$115,135,042.81
" loss on buildings and contents . . . . .	22,721,105.60
" " " " " " not insured . . . . .	3,123,851.25
Per cent. of total loss on buildings and contents, not insured . . . . .	13.75

The same friendly feeling between the Fire and this Department continues to exist.

In conclusion, I desire to express my sincere thanks to all departments or persons who have in any way assisted this Department during the past year.

Respectfully submitted,

SAMUEL ABBOTT, JR.,

*Superintendent.*



Duty performed by Company No. 1, from March 1, 1894, to March 1, 1895.

Months.	Alarms responded to.					Hours on duty.			Covers spread.				Second Section of Company calls.															
	Bell.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	At Fires.	Extra at Fires.	Watching at Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous, days.	Protecting Roofs.	Totals.
							H. M.	H. M.	H. M.	H. M.	H. M.	H. M.																
March, 1894	41	5	2	37	15	48	23.16	37.05	188.15	217.31	89	0	0	89	4	1			2									3
April, "	40	1	2	36	9	43	45.15		281.10	363.31	253	13	7	273	0	1					1	1			1			5
May, "	33	3	5	35	16	41	46.48	21.	110.30	184.18	196	0	14	210	0		2					1			1			4
June, "	35	5	0	32	13	40	31.44	6.20	161.55	200.00	146	7	0	153	3				2		1				1			5
July, "	38	12	5	39	21	55	28.25	9.45	133.51	172.01	90	1	1	92	3				2				1					4
Aug., "	20	5	1	18	9	26	15.22	2.15	1.36	19.13	48	1	0	49	0													0
Sept., "	22	2	2	24	8	26	14.19	0.	154.40	168.59	44	1	0	45	0								2					2
Oct., "	40	4	3	37	18	47	20.58	102.56	134.40	267.34	231	4	47	282	0				1		1					3		5
Nov., "	38	4	6	42	14	48	32.21	6.31	103.40	142.32	99	2	0	101	3				3									5
Dec., "	34	1	2	29	9	37	32.28	7.58	206.09	246.35	236	1	0	237	1				2			2						6
Jan., 1895	38	9	2	41	14	49	31.26	1.	146.18	178.44	118	0	0	118	3				2		1							7
Feb., "	28	10	3	30	14	41	18.29	0.	121.35	140.04	37	0	0	37	3				0				2					2
Totals . . .	407	61	33	400	166	501	355.51	194.51	1750.20	2301.02	*1587	30	69	1636	20	7	0	2	14	0	4	4	9	0	3	2	3	48

\*Company No. 2 assisted in spreading some of these covers.

Duty performed by Company No. 2, from March 1, 1894, to March 1, 1895.

Months.	Alarms responded to.					Hours on duty.			Covers spread.				Second section of Company calls										Totals.					
	Box.	Skill.	Automatic.	Wagon responded.	Callmen responded.	Total Alarms.	At Fires.	Extra at Fires.	Watching after Fires.	Totals.	Totals.																	
											On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.														
March, 1894	68	5	0	40	33	73	H. M. 69.35	H. M. 3.	H. M. 198.15	H. M. 270.50	54	12	66	2	0	1	2	1st Alarms.	2d Al's.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Retained on duty during daytime A. Force.	Extra hazardous days A. Force on duty.	Protecting Roofs.	Totals.
April, "	79	5	1	54	31	85	84.48	25.	1159.30	1269.18	156	18	174	3	1		0	1	2	1	2		1					5
May, "	70	7	3	48	32	80	80.16	28.23	155.45	264.24	119	13	132	0	0	1	2	1	2				1	1		2		7
June, "	55	5	4	38	24	64	55.10		54.15	109.25	134	1	135	2	1	1	2	1	2		1							5
July, "	85	10	1	47	49	96	70.45	2.35	63.30	136.50	74	5	79	0	1		2									1		5
Aug., "	37	4	0	27	13	41	35.		148.49	183.49	28	2	30	2	0													0
Sept., "	44	8	3	34	20	55	40.52		93.15	134.07	47	4	51	0	4								1					5
Oct., "	49	6	1	49	7	56	56.29		305.50	362.19	161	6	167	0	0		1	1	1									3
Nov., "	55	9	0	43	20	64	55.10		106.55	162.05	66	5	71	2	2		1	1										4
Dec., "	60	8	1	49	19	69	68.02	2.	263.30	333.32	134	1	135	4	4		0	0	2	2			1					7
Jan., 1895	58	13	2	47	26	73	68.45	16.30	994.05	1079.20	141	24	165	0	0		1	1										4
Feb., "	61	7	1	45	24	69	74.15		156.40	230.55	79	0	79	4	1		0				1							2
Totals . . .	721	87	17	521	298	825	759.07	77.28	3700.19	4536.54	*1193	91	1284	19	14	1	3	11	1	7	2	5	0	2	1	3	50	

\*Company No. 1 assisted in spreading some of these covers.

## SCHEDULE OF PROPERTY

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES NOS. ONE AND  
TWO, AND IN THE OUTLYING DISTRICTS.

---

Horses . . . . .	10
Wagons "complete" . . . . .	4
Wagons "spare" . . . . .	1
Wagon supply . . . . .	1
Pungs complete " . . . . .	1
Wagons for Superintendent . . . . .	2
Sleighs " " . . . . .	2
Rubber covers "stock" . . . . .	486
Rubber covers, roof . . . . .	22
Canvas covers for roofs . . . . .	4
Fire extinguishers . . . . .	8
Life-saving blankets . . . . .	4
Sets of patent double harnesses . . . . .	4
Single harnesses . . . . .	2
Wagon poles "extra" . . . . .	2
Wheels "extra" . . . . .	4
Whiffletrees "extra" . . . . .	5
Bedsteads with bedding . . . . .	49
Mantle bedsteads with bedding . . . . .	2
Billiard table "complete" . . . . .	1
Fire hats . . . . .	47
Necessary tools and equipments.	
" stable equipments.	
" extra parts of harnesses.	
" house furniture and fixtures.	
" telegraph apparatus.	
" gas fixtures.	
" supplies.	
" stationery.	

For detailed statement, see Quarterly Report at Superintendent's Headquarters.

OFFICE OF SECRETARY-TREASURER,

No. 5 HAMILTON STREET,

BOSTON, March 1, 1895.

TO THE PRESIDENT AND DIRECTORS :

*Gentlemen:*—The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1894 to Dec. 31, inclusive, is as follows. The loss to companies for the year 1894 being divided, shows :—

Insurance on buildings . . . . .	\$6,849,379.33
Loss on buildings . . . . .	636,964.32
Insurance on contents . . . . .	3,893,242.42
Loss on contents . . . . .	669,857.10
Insurance on marine risks . . . . .	4,000.00
Loss on marine risks . . . . .	350.00
Insurance on rents . . . . .	30,940.00
Loss on rents . . . . .	4,651.95

## CAUSES OF FIRES AND ALARMS.

MARCH 1, 1894, TO FEB. 28, 1895, INCLUSIVE.

Buildings, defective . . . . .	33
Causes not otherwise enumerated . . . . .	364
Electricity . . . . .	35
Fireworks . . . . .	30
Gas . . . . .	77
Incendiary (supposed) . . . . .	59
Kerosene oil . . . . .	134
Matches . . . . .	175
Needless . . . . .	101
Sparks . . . . .	78
Spontaneous combustion . . . . .	37
Unknown . . . . .	129
Vapors . . . . .	24
	<hr/>
	1276

## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March, 1, 1895.

Months.	Alarms.					Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by occt.	Total.	Spread.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra Covers used.
March, 1894.	90	27	3	4	124	143	12	6	91	..	386	30	4	..	..
April, "	93	11	3	..	107	413	23	3	94	45	1440	30	63	..	7
May, "	88	23	9	1	121	301	..	..	101	40	272	15	49	20	14
June, "	77	21	5	1	104	280	5	5	76	..	183	30	6	20	..
July, "	106	39	6	2	153	164	9	..	94	..	198	..	12	30	..
August, "	44	12	4	1	61	76	3	2	48	..	283	..	2	15	..
Sept., "	55	19	4	..	78	92	5	..	52	..	248	..	..	..	..
Oct., "	71	17	4	..	92	349	8	..	78	15	432	45	102	..	47
Nov., "	71	28	7	1	107	170	7	2	74	..	363	..	8	30	..
Dec., "	71	14	6	1	92	368	2	5	88	..	459	30	10	..	..
Jan., 1895.	74	37	5	1	117	259	24	3	90	..	1140	..	18	..	..
Feb., "	78	32	5	5	120	115	..	7	79	30	279	..	..	..	..
	918	280	61	17	1276	2,730	98	33	907	40	5086	..	275	55	68

Comparison of Fires, Covers Spread, Fire and Watch Duty Performed for fifteen years, each year commencing March 1, and ending the last day of February.

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1,015	2,683	820	05	2,611	30
1892	1,242	2,722	1,061	00	5,554	30
1893	1,189	3,455	1,155	45	5,179	15
1894	1,296	2,730	967	40	5,686	..



# MONTHLY STATEMENT

Of Insurance and Loss on Buildings, Contents, Rents, and Marine, for the year ending March 1, 1895.

Months.	Buildings.		Contents.		Losses not Insured.		Total.		Rents.		Marine.	
	Insurance.	Loss.	Insurance.	Loss.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.
March,	\$ 784,908.00	\$22,331.20	\$ 351,289.48	\$ 28,969.10	\$ 395.00	\$ 1,381.86	\$1,136,257.48	\$ 53,077.16	.....	.....	.....	.....
April,	453,626.89	28,302.00	386,984.00	60,449.40	3,308.89	6,814.65	846,610.89	98,874.94	.....	.....	.....	.....
May,	1,186,542.50	341,391.99	612,910.00	152,761.71	116,767.97	65,678.00	776,599.67	1,200.00	19,640.00	2,744.50	.....	.....
June,	428,084.94	13,668.70	180,100.82	46,659.09	765.00	5,325.75	608,185.76	66,418.51	.....	.....	.....	.....
July,	495,760.00	16,053.11	88,284.92	14,928.12	233.00	1,395.00	534,014.92	32,609.23	.....	.....	.....	.....
Aug.,	294,750.00	11,855.27	203,050.00	43,809.82	233.00	1,139.15	497,800.00	67,037.24	.....	.....	.....	.....
Sept.,	203,950.00	8,012.35	100,050.00	8,132.32	5.00	2,550.72	304,000.00	18,700.39	.....	.....	.....	.....
Oct.,	427,200.00	18,346.54	191,852.08	45,997.08	180.00	1,584.69	619,052.08	66,108.21	2,600.00	291.70	4,000.00	350.00
Nov.,	514,323.00	33,141.25	316,076.12	48,600.19	846.22	949.67	830,399.12	83,546.33	.....	.....	.....	.....
Dec.,	692,950.00	32,661.88	539,550.00	75,696.24	265.00	4,651.72	1,232,500.00	113,274.81	.....	.....	.....	.....
Jan.,	659,245.64	22,820.00	702,608.36	82,515.91	3,773.71	5,172.86	1,361,874.00	114,281.78	15,000.00	unsettled	.....	.....
Feb.,	* 723,542.50	37,329.25	151,250.00	13,443.21	725.46	2,240.00	874,799.50	53,737.92	.....	.....	.....	.....
	6,870,963.47	585,913.54	3,824,005.78	621,970.49	127,493.25	98,883.97	10,694,969.25	1,434,206.25	38,440.00	3,628.36	4,000.00	350.00

\*Some unsettled losses and estimated

Comparison of Insurance and Losses for Fifteen Years, each year commencing March 1st, and ending the last day of February.

Year.	Insurance.	Total Loss.	Loss not insured.
1880	\$6,009,756.00	\$1,056,468.00	.....
1881	3,801,564.11	551,058.82	.....
1882	5,209,049.83	940,073.69	.....
1883	6,972,141.29	1,100,331.81	.....
1884	6,933,012.24	1,256,944.74	.....
1885	6,371,291.77	1,167,835.28	.....
1886	4,194,431.11	905,080.68	.....
1887	6,440,632.21	734,737.21	.....
1888	7,450,420.52	1,080,217.96	.....
1889	13,014,984.37	5,078,142.18	.....
1890	7,730,043.60	787,577.27	.....
1891	10,109,612.58	1,582,932.14	.....
1892	10,977,922.67	2,293,235.98	.....
1893	16,024,654.12	3,953,121.69	.....
1894	.....	1,434,266.25	.....





## CLASSIFICATION OF COVERS SPREAD.

53 Fires of 1 Cover each . . . 53	4 Fires of 25 Covers each . 100
32 " " 2 Covers " . . . 64	1 " " 26 " " . 26
22 " " 3 " " . . . 66	3 " " 27 " " . 81
22 " " 4 " " . . . 88	3 " " 33 " " . 99
12 " " 5 " " . . . 60	1 " " 34 " " . 34
2 " " 6 " " . . . 12	1 " " 38 " " . 38
10 " " 7 " " . . . 70	1 " " 39 " " . 39
6 " " 8 " " . . . 48	2 " " 45 " " . 90
4 " " 9 " " . . . 36	1 " " 46 " " . 46
5 " " 10 " " . . . 50	1 " " 48 " " . 48
4 " " 11 " " . . . 44	1 " " 50 " " . 50
2 " " 12 " " . . . 24	1 " " 58 " " . 58
4 " " 13 " " . . . 52	1 " " 59 " " . 59
1 " " 14 " " . . . 14	1 " " 70 " " . 70
1 " " 15 " " . . . 15	1 " " 74 " " . 74
1 " " 16 " " . . . 16	1 " " 75 " " . 75
2 " " 17 " " . . . 34	1 " " 81 " " . 81
1 " " 18 " " . . . 18	1 " " 82 " " . 82
4 " " 19 " " . . . 76	1 " " 120 " " . 120
3 " " 20 " " . . . 60	1 " " 133 " " . 133
2 " " 21 " " . . . 42	1 " " 154 " " . 154
1 " " 22 " " . . . 22	1 " " 185 " " . 185
1 " " 24 " " . . . 24	

Total Fires . . . 225

Total covers . 2,730

225 Fires, 2,730 Covers. Average,  $12\frac{13}{100}$ .

## COVERS.

On hand last report . . . , . . .	561
Condemned and destroyed . . . . .	53
Total covers on hand March 1, 1895 . . . . .	508

## GRADE OF LOSSES.

Grade of Losses for the year 1894, commencing January 1st, and ending December 31st.

	Fires with no loss.	Aggregate.	Average.
519			
331	" " loss under \$100 . . . . .	\$11,789.41	\$ 35.61
202	" " " from \$100 to \$500 . . . . .	48,481.90	240.00
60	" " " " \$500 to \$1,000 . . . . .	40,011.10	666.83
83	" " " " \$1,000 to \$5,000 . . . . .	186,136.91	2,242.61
16	" " " " \$5,000 to \$10,000 . . . . .	114,531.95	7,158.25
8	" " " " \$10,000 to \$15,000 . . . . .	94,078.39	11,759.79
	Over \$15,000 as follows:		
1	Fire Jan. 2, 598 Washington St., Globe Theatre, <i>et al.</i> . . . .	244,652.69	\$1,231,607.90
1	" " 13, Dudley St., church . . . . .	21,699.00	
1	" " Feb. 17, 83 Cornhill, F. A. Walker & Co., <i>et al.</i> . . . .	20,077.28	
1	" " 27, 72 Pearl St., Denny, <i>et al.</i> . . . .	56,358.27	
1	" " Mar. 3, 371 Atlantic Ave., W. A. Wood & Co., <i>et al.</i> . . . .	17,119.58	
1	" " Apr. 11, 73 High St., J. Alba Davis, <i>et al.</i> . . . .	25,889.78	
1	" " 30, 60 Pearl St., Mills, Knight & Co. . . . .	15,703.46	
1	" " May 15, Base-Ball Stand conflagration . . . . .	519,741.98	
1	" " 17, 177 State St., Appraisers' Stores . . . . .	116,866.01	
1	" " June 2, 5 Winter St., Gilchrist & Co. . . . .	34,114.00	
1	" " Aug. 23, 2-12 High St., F. A. Whitcher & Co., <i>et al.</i> . . . .	36,178.63	87,971.21
1	" " Oct. 13, 109 Broad St., Austin & Eddy, <i>et al.</i> . . . .	25,156.35	
1	" " Nov. 19, Granite St., Flanders & Co., . . . . .	35,801.16	
1	" " Dec. 31, 151 Castle St., Little, Maxwell & Co., <i>et al.</i> . . . .	62,239.71	350.00
	Marine losses (see tables)		
1233		\$1,726,627.56	

The 714 fires where there was a loss, the average was \$2,418.24.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for fourteen years, commencing January 1, 1881.

Year.	Total Fires.	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average Loss of Total Fires with Loss.
1881	558	344	\$ 467,105.28	\$ 837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,879.62	6,103.15	9,756.84
1890	933	562	1,068,887.29	1,167.08	1,937.52
1891	980	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	718	846,395.12	708.70	1,178.82
1893	1,234	684	5,024,765.04	2,654.39	7,346.14
1894	1,233	714	1,726,627.56	1,400.35	2,418.24
Total	11,628	7,079	\$22,721,988.01	\$1,954.08	\$3,209.77

## CAUSES OF FIRES AND ALARMS.

---

Alarms, false . . . . .	35
"    needless . . . . .	66
Ashes, hot . . . . .	4
"    "    in wooden receptacles . . . . .	11
Attempts to thaw frozen water pipes . . . . .	21
Assistance called for . . . . .	3
Awning fires . . . . .	4
Back drafts . . . . .	4
Bonfires . . . . .	4
Boys, set by . . . . .	45
Brush fires . . . . .	18
Boiling over of a kettle of wax . . . . .	1
"    "    "    kettles of fat . . . . .	11
"    "    "    "    "    tar . . . . .	2
Candles lighted . . . . .	12
Chimney fires . . . . .	29
Chemicals, careless use of . . . . .	1
Christmas tree . . . . .	1
Cigar stubs, lighted . . . . .	15
Cigarettes, " . . . . .	3
Coals, hot . . . . .	3
Clothing, from stoves . . . . .	1
Defective chimneys . . . . .	16
"    flues . . . . .	9
"    construction . . . . .	6
"    ranges . . . . .	1
"    stove pipes . . . . .	1
Electric flat irons . . . . .	1
"    light wires . . . . .	32
"    motors . . . . .	2
Explosion of hot water heaters . . . . .	5
"    "    malt mills . . . . .	2
Fire crackers . . . . .	25
Fire works . . . . .	5
Friction from machinery . . . . .	1
Fumigating rooms . . . . .	2
Gas explosions . . . . .	4
"    jets lighted . . . . .	19
"    "    "    and curtains . . . . .	39
"    leaks . . . . .	14
"    stoves . . . . .	1
Gasoline lamp . . . . .	1
"    stoves . . . . .	2
"    torches . . . . .	2
Grass fires . . . . .	8

Incendiary . . . . .	44
"    supposed . . . . .	15
Kerosene oil engine . . . . .	1
"    "    igniting . . . . .	2
"    "    lamps setting fires . . . . .	22
"    "    "    breaking or overturning . . . . .	48
"    "    "    exploding . . . . .	25
"    "    "    stoves . . . . .	36
Lime slacking . . . . .	2
Lightning . . . . .	9
Matches, careless use of . . . . .	102
"    and children . . . . .	42
"    "    rats . . . . .	31
Molten metal . . . . .	2
Overheated bearings . . . . .	2
"    boilers . . . . .	6
"    dryer . . . . .	1
"    furnaces . . . . .	15
"    flues . . . . .	1
"    journals . . . . .	3
"    stoves . . . . .	27
"    stove pipes . . . . .	3
"    steam pipes . . . . .	6
"    still . . . . .	1
"    smoke stack . . . . .	1
"    fire pot . . . . .	1
"    crucible . . . . .	1
"    iron . . . . .	1
Plumbers furnaces . . . . .	6
Picker machine . . . . .	1
Rekindling of fires . . . . .	3
Roofers furnaces . . . . .	4
Rubbish fires . . . . .	5
Railroad collision . . . . .	1
Sprinkler, call to . . . . .	1
Smoky chimneys . . . . .	28
"    furnaces . . . . .	1
"    stoves . . . . .	12
Steam, escaping . . . . .	3
Sparks from boilers . . . . .	3
"    "    chimneys . . . . .	18
"    "    furnaces . . . . .	5
"    "    forges . . . . .	6
"    "    hoisting engines . . . . .	3
"    "    locomotive engines . . . . .	18
"    "    malt grinders . . . . .	3
"    "    ovens . . . . .	1
"    "    open flues . . . . .	1
"    "    tobacco smokers pipes . . . . .	20
Spontaneous combustion . . . . .	37
Unknown . . . . .	129
Vapor from naphtha . . . . .	12
"    alcohol . . . . .	8
"    benzine . . . . .	1
"    gasoline . . . . .	3
Varnish igniting . . . . .	1
Total . . . . .	1,276

Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for fourteen years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured for fourteen years.

## BUILDINGS.

Year	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	05.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	06.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	08.68	23,478.10	358,459.20	07.00
1884	3,227,819.93	189,168.83	05.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	07.22	24,240.96	246,042.71	09.85
1886	2,733,588.56	275,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	05.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85	05.07	12,302.39	240,236.25	05.12
1889	4,583,384.25	911,382.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
1893	8,047,857.57	1,289,054.22	16.02	115,994.73	1,405,048.95	8.26
1894	6,849,379.33	636,964.32	9.30	236,195.41	873,159.73	27.05
Tot.	\$60,480,846.05	\$5,478,188.52	9.06	\$1,127,489.08	\$6,606,127.61	17.06

## CONTENTS.

Year	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$31,813.20	\$336,605.78	09.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,409.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	08.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.80	715,197.05	20.01	76,243.41	791,440.47	09.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
1893	10,332,586.55	3,373,037.42	32.64	246,678.67	3,619,716.09	6.82
1894	3,893,242.42	669,857.10	17.25	183,610.73	853,467.83	21.51
Tot.	\$54,654,196.75	\$14,119,065.81	25.83	\$1,996,362.17	\$16,115,427.99	12.31

## TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co.'s	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance
1881	\$3,905,227.61	\$420,404.61	16.76	\$467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,253.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,930.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.91	11.69	1,031,676.72	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,512,074.51	14.47
1892	8,481,051.68	731,948.78	8.62	846,395.12	9.97
1893	18,380,444.12	4,662,091.64	25.36	5,024,765.04	27.32
1894	10,742,621.75	1,306,821.42	12.16	1,726,627.56	16.05
Tot.	\$115,135,042.81	\$19,597,254.34	17.02	\$22,721,105.60	19.73

Respectfully submitted,

EDWARD SPAULDING, *Secretary.*



# STATISTICS OF ALARMS AND FIRES FOR FOUR YEARS.

Year	Area Sq. Mile.	Population Census 1890.	Number of Buildings in the City, &c.										Number of Alarms and Fires.									
			Brick, &c., Buildings last Report.	New Brick Build- ings Completed.	Brick Buildings Totally Destroyed.	Total Brick Build- ings.	Frame Buildings last Report.	Frame Buildings Completed (New).	Frame Buildings Totally Destroyed.	Total Frame Buildings.	Grand Total Brick and Frame Buildings.	Total Alarms.	Brick, Iron, &c.	Frame.	Outside.	Total Fires.	Confined to floor originated.	Confined to Build- ing originated.	Extended to Ad- joining Property.	Extended beyond Adjoining Prop'y.		
1891	37.04	448,477	22,700	329	1	22,700	43,800	1964	1	43,800	66,500	980	424	389	87	900	730	780	32	1		
1892	"	"	23,028	252	13	23,028	45,763	1611	3	45,763	68,791	1196	510	495	89	1094	955	966	38	1		
1893	"	"	23,267	398	12	23,267	47,371	1717	100	47,371	70,638	1233	500	403	264	1167	761	876	24	3		
1894	"	"	23,267			23,267	47,371			47,371	72,641	1233	477	400	115	1052	777	897	37	3		

Marine Fire Loss and Insurance.				Rents, Fire Loss and Ins.			
Total Loss thereon.	Total Insurance thereon.	Per cent. of Fires confined to Building.	Loss Per Capita.	Total Loss thereon.	Total Insurance thereon.	Total Insurance thereon.	Total Loss thereon.
\$1,512,074.51	\$10,447,875.87	2.00	\$3.37	\$1,208.12	\$3,000.00	\$1,208.12	\$5,325.31
846,395.12	8,481,051.58	2.44	1.89	25,057.81	58,057.57	25,057.81	*2,015.14
5,024,765.04	18,380,444.12	2.60	11.20	52,619.32	505,500.00	50,559.32	127,793.41
1,726,627.56	10,742,621.75	2.35	3.85	350.00	4,000.00	350.00	4,651.95
							\$56,100.00
							98,000.00
							317,531.00
							30,940.00

\*Rent Loss of Fire 569 Washington Street, May 30, 1892, not settled; in litigation.

## MEDICAL OFFICER'S REPORT.

BOSTON, March 1, 1895.

SAMUEL ABBOTT, JR.,

*Supt. Boston Protective Dept.*

*Dear Sir:* The fifth annual report of the Medical Officer for this Department is herewith respectfully submitted.

Number of applicants examined for appointment	.	.	.	35
Number of applicants examined for promotion	.	.	.	18
Number of visits to sick or injured members	.	.	.	65
Number of physician's reports examined	.	.	.	40
Number of special reports	.	.	.	3
Number of accident cases attended	.	.	.	1

The work according to months is as follows :

Months.	Applicants Examined.				Medical Report.
March	.	.	.	5	3
April	.	.	.	7	3
May	.	.	.	9	4
June	.	.	.	8	1
July	.	.	.	2	4
August	.	.	.	2	3
October	.	.	.	4	3
November	.	.	.	12	0
December	.	.	.	0	0
January	.	.	.	0	3
February	.	.	.	3	5

It was found necessary to reject six of the thirty-five who applied for membership. Below is given the causes for this action :

General low physical condition	.	.	.	.	1
Valvular disease of the heart	.	.	.	.	3
Organic disease of the kidney	.	.	.	.	1
Family history, light weights and poor physical condition	.	.	.	.	1

The following table will show the character of the injuries from which members of the Department have suffered during the year :

Gangreen	.	.	.	.	.	1
Muscular strain	.	.	.	.	.	1
Poisoned wounds	.	.	.	.	.	1
Sprained ankle	.	.	.	.	.	1
Burn face and hands	.	.	.	.	.	1
Contusion	.	.	.	.	.	5
Fractured rib	.	.	.	.	.	1



Incised wounds . . . . .	3
Lacerated wounds . . . . .	2
The causes of sick leave were as follows :	
Torti collis . . . . .	1
Lumbago . . . . .	2
Pharyngitis . . . . .	3
La Grippe . . . . .	1
Acute Bronchitis . . . . .	2
Simple Febricula . . . . .	1
Tonsilitis . . . . .	4
Cephalgia . . . . .	2
Alcoholism . . . . .	1
Pneumonia . . . . .	2

Of those examined for promotion one was not recommended on account of physical causes and one was postponed on account of bronchitis.

The number of visits made on sick or injured members were not all reported to the Superintendent, as many of them were made after the members had returned to duty.

The plan adopted last year of requiring the sick or injured members to be examined by your medical officer and a certificate forwarded stating that his physical condition would admit of his return to duty, has been in successful operation during the year just past.

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## SPECIAL REPORT.

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At the request of the Superintendent, Dexter R. Dearing was seen on four special occasions, a specialist advised to be called in; he was seen by Dr. Jelly and Dr. W. A. Morrison, (his physician), when an opinion was reached that he would not recover.

According to instruction the case of a member of the Department, who had suffered from pneumonia, was visited two or three times and special reports as to physical condition and inability to do either fire or house duty, returned.

A special report was made in response to the accident case of Geo. W. Billings, who was run into and knocked down by one of the wagons of the Department while crossing Tremont Street from School and Beacon. Mr. Billings was seen five times in his own house, the first on the day of the accident, of which the following report was returned:

"Mr. Billings stated that he was deaf to a certain extent; that sounds coming from the left he was apt to consider as coming from the right, so that he sometimes went towards instead of away from danger. Also, that he had poor eyesight, especially with left eye."

Examination: Contusion of right side of face and injury of right shoulder (strain and contusion, no fracture). The case was seen once at my office. No action was taken by Mr. Billings against the Department.

The year has been one remarkably free from any serious accident to officers and men of this Department. We have, however, lost by death two members: D. R. Dearing, who so long served the Department, and F. S. Lughton, assistant driver of Station 2.

Your medical officer is again happy to acknowledge the uniformly courteous treatment which both officers and men have shown him, in the discharge of the duties of this office.

WM. F. TEMPLE, M. D.

*Medical Officer Boston Protective Dept.*

## EXHIBIT A.

Review of Districts where alarms were given, for fourteen years, from March 1st to March 1st, of each year.

YEARS.		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	Total	Per Cent
City Proper	-	288	285	347	362	349	360	412	464	440	487	504	681	626	595	6,200	52.81
Roxbury	-	49	53	63	70	66	82	87	79	74	70	106	117	120	161	1,196	10.19
Charlestown	-	35	41	46	42	48	41	62	57	63	94	104	121	107	118	979	8.34
East Boston	-	45	50	51	44	47	51	67	61	61	51	57	63	75	76	789	6.72
South Boston	-	29	29	50	51	42	56	73	79	84	87	98	117	98	114	967	8.24
Dorchester	-	25	27	38	47	39	26	30	31	31	61	54	60	60	118	647	5.51
West Roxbury	-	33	17	33	12	45	24	38	34	44	41	63	55	22	68	529	4.51
Brighton	-	13	5	18	16	32	21	27	23	18	28	24	28	121	26	400	3.41
Cambridge	-	2	1	1	2	1	1	1	1	1	1	1	1	1	1	6	
Chelsea	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	
Brookline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Everett	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	
Harbor	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	2	
Milton	-	1	-	-	-	-	1	-	-	1	1	1	-	-	-	5	00.27
Newton	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	
Roslerville	-	-	-	-	1	-	-	-	-	1	1	2	-	-	-	5	
Watertown	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	
Total Alarms	-	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	11,739	100

## EXHIBIT D.

Review of causes of alarms and fires, for fourteen years, from March 1st to March 1st, of each year.

CAUSES.	1881 1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893 1894														Total	Per Ct.
Ashes, in wooden receptacles, hot	7	9	14	5	9	8	13	21	4	14	11	16	21	11	163	01.39
Buildings, defective	23	26	21	24	21	23	24	30	24	25	24	33	32	33	363	03.09
Causes not otherwise enumerated	102	81	117	96	129	98	136	122	151	233	308	285	255	263	2376	20.24
Combustion, spontaneous	17	34	30	18	13	23	29	32	21	34	34	56	32	37	410	03.49
Electricity	0	0	4	3	3	7	8	8	6	15	10	27	35	35	161	01.37
Fireworks	7	2	3	13	6	11	39	45	5	12	19	16	26	30	234	02.00
Gas	28	18	21	20	25	21	23	34	30	37	54	53	53	77	494	04.21
Incendiary (supposed)	48	35	64	57	46	63	44	87	48	22	40	51	32	59	646	05.50
Kerosene oil	36	39	46	65	85	69	75	87	120	90	109	138	172	134	1265	10.78
Matches	65	60	94	78	65	102	147	110	110	94	135	150	166	175	1551	13.21
Needles	53	57	66	72	47	59	59	79	94	46	36	75	74	101	918	07.82
Overheating	26	27	26	42	40	39	39	45	40	61	63	58	60	69	635	05.41
Sparks	31	27	33	36	34	29	39	40	35	41	44	44	93	61	621	05.29
Unknown	65	78	85	94	123	90	107	111	121	188	116	145	140	129	1562	13.56
Vapors igniting	7	12	11	4	14	13	5	10	10	6	7	11	15	24	149	01.27
Water Pipes, attempting to thaw	6	5	13	21	9	7	11	8	1	4	5	35	15	21	161	01.37
	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	11,739	100.

## EXHIBIT B.

Review of hours in day when alarms were received, for fourteen years, from March 1st to March 1st, of each year.

		Years.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	Total	Per Ct.
Day Service.	6 to 7 A.M.	7	10	11	10	11	17	17	16	10	12	16	22	33	28	220	22.36	
	7 " 8 "	13	10	12	21	19	14	25	18	17	33	25	25	27	28	287		
	8 " 9 "	14	18	20	22	31	22	21	23	37	34	26	32	41	31	372		
	9 " 10 "	23	14	25	23	15	27	25	38	22	30	36	44	49	48	419	19.05	
	10 " 11 "	15	24	24	26	34	23	32	26	26	43	36	51	66	48	474		
	11 " 12 noon	23	17	24	28	32	19	26	36	29	37	39	46	42	66	464		
	12 " 1 P.M.	27	24	29	22	29	27	30	33	27	36	36	40	62	61	483	32.77	
	1 " 2 "	13	22	23	33	28	23	32	20	29	34	48	63	35	63	466		
	2 " 3 "	18	18	38	27	29	21	35	36	28	38	51	48	42	57	486		
	3 " 4 "	24	16	39	28	28	13	39	41	31	40	46	70	53	66	534	27.91	
	4 " 5 "	23	22	31	34	28	8	45	45	42	56	50	87	67	62	600		
	5 " 6 "	48	25	40	42	45	20	44	53	59	53	74	74	71	60	708		
Night Service.	6 " 7 "	43	39	46	37	44	49	35	55	55	58	64	90	80	80	775	43.60	
	7 " 8 "	30	39	49	50	54	55	63	60	62	57	91	95	80	95	880		
	8 " 9 "	39	35	45	45	42	42	58	58	67	91	82	88	100	96	888		
	9 " 10 "	32	24	36	49	40	31	56	57	54	62	58	65	71	80	715	37.06	
	10 " 11 "	38	28	28	40	29	37	39	37	57	48	50	66	58	67	622		
	11 " 12 Md'n	17	23	31	17	23	26	45	35	42	37	29	50	42	53	470		
	12 " 1 A.M.	24	19	20	20	20	33	33	26	34	25	36	46	45	38	419	18.76	
	1 " 2 "	15	23	23	15	27	30	24	32	29	30	25	45	26	35	379		
	2 " 3 "	8	20	21	16	24	26	22	20	21	19	34	24	26	31	312		
	3 " 4 "	7	17	13	16	12	35	18	29	18	22	23	27	35	30	302	15.98	
	4 " 5 "	13	14	10	17	10	28	20	13	14	10	21	30	20	29	249		
	5 " 6 "	7	9	10	10	15	36	14	12	10	17	19	14	18	24	215		
Totals		521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	11,739	100	

## EXHIBIT C.

Review of days of the week when alarms were received, for fourteen years, from March 1st to March 1st, of each year.

Days.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	Total	Per Ct.
Monday	83	65	88	93	85	109	139	113	98	111	130	180	143	179	1616	13.77
Tuesday	73	74	107	89	84	98	98	109	131	150	165	179	201	166	1724	14.69
Wednesday	76	87	101	98	102	95	113	130	118	122	155	187	199	227	1810	15.42
Thursday	65	52	84	90	98	87	131	115	115	147	136	202	171	198	1691	14.40
Friday	84	74	98	100	109	79	111	123	138	162	139	157	157	180	1711	14.57
Saturday	65	81	88	93	112	103	122	133	120	137	169	189	155	171	1738	14.81
Sunday	75	77	82	85	79	91	84	96	100	93	121	148	163	155	1449	12.34
Total	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	11,739	100.

## EXHIBIT E.

Review of grade of losses for fourteen years, commencing January 1st and ending December 31st, of each year.

Years	Total Al'm	No Loss	Under \$100	\$100 to \$500	\$500 to \$1000	\$1000 to \$5000	\$5000 to \$10,000	\$10,000 to \$15,000	Over \$15,000	Total Fires with Loss	Average loss to Total fires with loss.
1881	558	214	156	84	32	47	11	7	7	344	\$1,357.86
1882	502	173	124	87	32	54	13	5	14	329	2,914.39
1883	641	270	124	109	30	64	14	14	16	371	3,053.86
1884	633	235	169	93	46	57	14	3	16	398	2,766.96
1885	655	258	167	98	41	62	11	4	14	397	3,103.91
1886	687	239	217	125	39	43	12	3	9	448	2,431.24
1887	754	294	197	115	51	65	16	6	10	460	1,500.98
1888	834	280	262	140	45	72	12	3	20	554	1,862.23
1889	788	294	220	137	46	54	20	5	12	494	9,756.84
1890	933	371	283	140	39	68	15	3	14	562	1,937.52
1891	1012	406	307	130	45	83	16	9	16	606	2,494.51
1892	1196	481	350	185	64	83	14	9	10	715	1,183.76
1893	1233	549	342	161	50	86	22	5	18	684	7,346.15
1894	1233	519	331	202	60	83	16	8	14	714	2,418.24
Total	11659	4583	3249	1806	620	921	206	84	190	7076	\$3,152.03
Per Ct.	100.	39.31	27.87	15.49	05.32	07.90	01.76	00.72	01.63	60.69	

TWENTY-SECOND  
ANNUAL REPORT

OF THE

Boston Protective Department,

From March 1, 1895, to March 1, 1896.







*Compliments of*

*Samuel Rickett, Jr.*

*Superintendent.*



## OFFICERS.

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*President :*

JAMES BRUERTON.

*Vice-President :*

FRED'K B. CARPENTER.

*Secretary-Treasurer ;*

EDWARD SPAULDING.

*Directors :*

TO SERVE UNTIL MARCH, 1896.

A. M. BULLARD.

JAMES BRUERTON.

A. L. BARBOUR.

TO SERVE UNTIL MARCH, 1897.

E. E. PATRIDGE.

T. T. SAWYER, JR.

T. L. O'BRIEN.

TO SERVE UNTIL MARCH, 1898.

ROBERT A. BOIT.

ARTHUR W. POPE.

FRED'K B. CARPENTER.



BOSTON, March 13th, 1896.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT : —

The Directors submit herewith the 22d Annual Report of the Department, with the reports of the Superintendent, Secretary, Treasurer and Medical Officer, and the usual statistical tables.

The Board recommend, first, that the active duties of the Department be continued for another year; second, that the Directors be authorized to expend for the maintenance of the Department a sum not exceeding Sixty-five Thousand Dollars.

For the Directors,

JAMES BRUERTON,

*President.*

TREASURER'S  
RECEIPTS AND EXPENDITURES OF THE BOSTON

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1896.		
March.	By Cash on hand, Balance . . . . .	\$ 9,846.65
	Balance of Assessments of January 1, 1895 . . . . .	19,090.18
	Balance of Assessments to July 1, 1895 . . . . .	31,061.75
	Six Months' Assessment to January 1, 1896 . . . . .	30,017.35
	Interest Eliot National Bank . . . . .	243.24
	Cash received for Watch Duty . . . . .	1,459.85
	Cash received for Tools Lost . . . . .	1.10
	Cash received for Telephone Credit . . . . .	11.66
	Cash received for Automatic Credit . . . . .	62.93
	Cash received for Old Material . . . . .	40.75
		<hr/>
		\$91,835.46

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NET RUNNING EXPENSES

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March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	28,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	51,681.42
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08
March, 1893, to March, 1894 . . . . .	58,655.41
March, 1894, to March, 1895 . . . . .	56,125.42
March, 1895, to March, 1896 . . . . .	61,423.48

## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1896.

## To Cash paid:—

Pay-roll, Permanent force Company No. 1 . . . . .	\$15,612.36
Auxiliary " " " . . . . .	4,760.19
Call " " " . . . . .	600.00
Permanent " " No. 2 . . . . .	14,871.94
Auxiliary " " " . . . . .	4,578.95
Call " " " . . . . .	928.22
Secretary, Treasurer and Office . . . . .	2,491.52
Medical Officer and Bills . . . . .	515.00
Rent and Taxes of Houses . . . . .	5,881.06
Hay and Grain . . . . .	1,036.73
Wagon and Harness Repairs . . . . .	690.15
Horse-shoeing . . . . .	437.81
Fuel . . . . .	554.87
Gas . . . . .	458.80
Washing . . . . .	378.34
Supplies . . . . .	537.42
New England Telephone & Telegraph Co. . . . .	441.97
Automatic Fire Alarm & Electric Apparatus . . . . .	118.83
Water Tax . . . . .	144.05
Repairs and Furnishing of Houses . . . . .	280.02
Veterinary Services . . . . .	16.10
Sundries . . . . .	163.02
Directors' Meetings . . . . .	112.00
Printing and Stationery . . . . .	1,812.55
Advertising Annual Meeting . . . . .	64.70
Auditor's fees . . . . .	50.00
Surety Bond . . . . .	75.00
Employers' Liability . . . . .	430.23
New Covers . . . . .	1,000.00
Entertainment Opening New House No. 1 . . . . .	120.00
Equipment of New House No. 1 . . . . .	1,966.11
Collision damages . . . . .	10.90
Underground Cables . . . . .	785.37
New Pung for Department . . . . .	325.00
New Buggy for Superintendent . . . . .	350.00
	<hr/>
	\$62,594.21
Paid for Watch Duty . . . . .	640.29
Rebate on Assessments . . . . .	8.51
Balance Due for Assessments of January 1, 1895 . . . . .	136.74
" " " July 1, 1895 . . . . .	148.13
" " " January 1, 1896 . . . . .	20,087.70
Balance Cash on Hand . . . . .	8,219.88
	<hr/>
	\$91,835.46

E. &amp; O. E.

EDWARD SPAULDING, *Treasurer.*

BOSTON, March 6, 1896.

Audited and found correct to date.

P. E. EDDY,	} Auditing Committee.
FRED'K W. PORTER,	
EDWARD D. BLAKE,	



## SUPERINTENDENT'S REPORT.

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HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT., NO. 40 PURCHASE ST. }

BOSTON, March 1st, 1896.

TO THE PRESIDENT AND BOARD OF DIRECTORS:

*Gentlemen:* In compliance with Article IV. of By-Laws of the corporation of the Boston Protective Department, authorized by an Act entitled "An Act to incorporate the Boston Protective Department," passed March 9, 1874, amended February 4, 1879, I herewith submit the Twenty-second Annual Report of operations of the Department for the year 1895, ending March 1, 1896.

The several tables of statistics heretofore submitted, have been extended to include the periods above mentioned; and also tables for the years represented commencing January 1 and ending December 31, inclusive. (See Secretary's Report and Exhibits.)

### ORGANIZATION.

The organization of the Department continues the same as last year.

#### BUILDINGS, ALARMS, FIRES, INSURANCE AND LOSS FOR 1895.

On January 1, 1895, there were 23,653 brick, stone, iron, etc., and 48,988 frame buildings in the City of Boston, making a total of 72,641 buildings; during the year there were 328\* brick, stone, iron, etc., and 1445\* frame buildings completed. 1 brick, stone, iron, etc., and 11 frame buildings, were totally destroyed by fire, making the total number of buildings at the end of the year, 23,980 brick, stone, iron, etc., and 50,422 frame; grand total, 74,402 buildings.

The total alarms during the year 1895 (January 1st to December 31st inclusive) were 1,234, of which 1,024 were for fires; of these 471 occurred in brick, stone, iron, etc., buildings, 457 in frame buildings, and 96 outside; the number of fires to 1,000 population were 2.35.

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\*By courtesy of Inspection of Buildings Department of City of Boston.

Of these fires 772 were confined to the floor where they originated, 886 to the building where they originated, 40 extended to adjoining property, and 2 extended beyond adjoining property; the per cent. of fires confined to buildings where they originated was 86.00.

The total loss on buildings and contents was \$1,195,343.28; total insurance, \$10,023,071.51, and the total insurance loss was \$1,074,478.14; the above was divided as follows:—

Total loss on buildings . . . . .	\$477,452.81
Total insurance loss on buildings . . . . .	433,404.36
Total insurance on buildings . . . . .	6,657,272.17
Per cent of total loss not insured on buildings . . . . .	09.22
Total loss on contents . . . . .	717,890.47
Total insurance loss on contents . . . . .	641,073.78
Total insurance on contents . . . . .	3,365,799.34
Per cent of total loss, not insured, on contents . . . . .	10.70

The loss per capita was  $2\frac{67}{100}$ , which does not include the Marine Fire and Rent losses.

The total Marine fire loss was \$56,842.82.

On ships, vessels and cargoes paid by insurance companies \$56,742.82

The total insurance thereon was \$58,799.00.

The total Rent loss was \$1,363.18, and the total insurance thereon was \$68,350.00.

The per cent. of grade of alarms and losses for 1895 were as follows:—

39.54 had no loss.

28.03 the loss was under \$100.

15.40 “ “ from \$100 to \$500.

05.24 “ “ \$500 to \$1,000.

07.80 “ “ \$1,000 to \$5,000.

01.71 “ “ \$5,000 to \$10,000.

00.68 “ “ \$10,000 to \$15,000.

01.60 “ “ over \$15,000.

---

100

The per cent. of causes of alarms and fires for 1895 were as follows:—

01.43 was ashes in wooden receptacles hot.

03.10 “ defective buildings.

20.14 “ carelessness not otherwise enumerated.

01.43 “ electricity.

02.07 “ fireworks.

04.30 “ gas.

05.27 “ supposed incendiary.

10.66 “ kerosene oil.

13.27 “ matches.

08.28	was needless.
05.49	" overheating.
05.51	" sparks.
03.44	" spontaneous combustion.
01.32	" vapors igniting.
12.89	" unknown.
01.45	" water pipes, attempting to thaw.

---

100

The operations of the department for the year ending March 1st, 1896, are as follows:—

		Co. No. 1.	Co. No. 2.
Alarms.	{ Bell . . . . .	381	749
	{ Still . . . . .	61	105
	{ Automatic . . . . .	42	20
Responded to by	{ Wagon . . . . .	393	533
	{ Callmen . . . . .	139	514
Total Alarms		484	874
Hours Duty	{ At fires . . . . .	379.05	737.18
	{ After fires protecting goods . . . . .	117.31	124.24
	{ Watch . . . . .	1,768.23	3,194.44
	{ Total . . . . .	2,265.08	4,057.26
Covers Used.	{ On goods . . . . .	1,284	1,176
	{ " protecting from storms . . . . .	20	15
Extinguishers used	{ On roofs . . . . .	65	55
	{ . . . . .	9	14

*Second Section (in section) Called in Service.*

First Alarm.	{ When 1st out section was at a fire . . . . .	4	16
	{ When all other sections was at a fire . . . . .	1	1
	{ When covering a company district . . . . .	5	3
Second Alarms.	{ 2d alarms . . . . .	10	7
	{ With 2d section wagon during daytime . . . . .	0	0
Telephone calls		5	4
Messenger calls		0	0
Covering	{ When both sections of a company were at a fire . . . . .	10	3
Auxiliary Force retained on day duty after a fire		4	1
" " " " " extra hazardous days		5	3
Protecting roofs		1	2
Total		45	40

The total number of alarms and fires was 1,276, it being 20 more than last year.

There were 997 $\frac{3}{4}$  hours' fire service, 4,964 $\frac{3}{4}$  hours' watch duty, and 266 $\frac{1}{2}$  hours' service, protecting buildings and contents from storms, equivalent to 259 days of twenty-four hours each, 12 hours and 50 minutes, it being 29 days, 2 hours and 45 minutes less, in comparison with the previous year. There were 2,462 covers used

in covering goods at fires, 35 on goods and 120 on roofs, protecting the buildings and contents after fires from additional damage by storms; which makes a total of 2,617 covers used; representing 565,272 square feet.

The following is a review of alarms and fires in Districts, Hours of Day, Days of Week, and Causes of same, insurance and loss for fifteen years from 1881 to 1895 inclusive; commencing March 1, and ending the last day of February of each year.

DISTRICTS.					(Exhibit A)		
City Proper	.	.	.	.	6,852	or	52.57 per cent.
Roxbury	.	.	.	.	1,374	"	10.54 " "
Charlestown	.	.	.	.	1,072	"	08.22 " "
South Boston	.	.	.	.	1,089	"	08.35 " "
East Boston	.	.	.	.	862	"	06.61 " "
Dorchester	.	.	.	.	728	"	05.59 " "
West Roxbury	.	.	.	.	594	"	04.56 " "
Brighton	.	.	.	.	428	"	03.28 " "
Assistance rendered	.	.	.	.	36	"	00.28 " "
					13,035	100	" "

HOURS IN DAY WHEN ALARMS WERE RECEIVED.						(Exhibit C)		
Day-Time.	6 to 7	A. M.	.	.	.	247	2,519	19.32 per cent.
	7 to 8	"	.	.	.	329		
	8 to 9	"	.	.	.	416		
	9 to 10	"	.	.	.	466		
	10 to 11	"	.	.	.	540		
	11 to 12	NOON	.	.	.	521	3,678	28.22 per cent.
	12 to 1	P. M.	.	.	.	556		
	1 to 2	"	.	.	.	527		
	2 to 3	"	.	.	.	545		
	3 to 4	"	.	.	.	598		
Night-Time.	4 to 5	"	.	.	.	681	4,789	36.74 per cent.
	5 to 6	"	.	.	.	771		
	6 to 7	"	.	.	.	858		
	7 to 8	"	.	.	.	973		
	8 to 9	"	.	.	.	966		
	9 to 10	"	.	.	.	794	2,049	15.72 per cent.
	10 to 11	"	.	.	.	676		
	11 to 12	MIDNIGHT	.	.	.	522		
	12 to 1	A. M.	.	.	.	457		
	1 to 2	"	.	.	.	409		
	2 to 3	"	.	.	.	335	2,049	15.72 per cent.
	3 to 4	"	.	.	.	381		
	4 to 5	"	.	.	.	274		
	5 to 6	"	.	.	.	243		
	Total							

65 per cent. of alarms and fires have occurred between the hours of 12 o'clock noon and 12 o'clock midnight.

DAYS OF WEEK.					(Exhibit D)	
Mondays	.	.	.	.	1,807	13.86 per cent.
Tuesdays	.	.	.	.	1,887	14.48 " "
Wednesdays	.	.	.	.	1,996	15.31 " "
Thursdays	.	.	.	.	1,883	14.45 " "
Fridays	.	.	.	.	1,892	14.52 " "
Saturdays	.	.	.	.	1,961	15.04 " "
Sundays	.	.	.	.	1,609	12.34 " "
Total					13,035	100.

CAUSES OF ALARMS AND FIRES.					(Exhibit B)	
Ashes; in wooden receptacles hot	.	.	.	.	186	01.43 per cent.
Buildings, defective	.	.	.	.	404	03.10 " "
Causes not otherwise enumerated	.	.	.	.	2,625	20.14 " "
Combustion, spontaneous	.	.	.	.	448	03.44 " "
Electricity	.	.	.	.	186	01.43 " "
Fireworks	.	.	.	.	270	02.07 " "
Gas	.	.	.	.	560	04.30 " "
Incendiary, supposed	.	.	.	.	687	05.27 " "
Kerosene oil	.	.	.	.	1,390	10.66 " "
Matches	.	.	.	.	1,730	13.27 " "
Needless	.	.	.	.	1,072	08.23 " "
Overheating	.	.	.	.	716	05.49 " "
Sparks	.	.	.	.	719	05.51 " "
Unknown	.	.	.	.	1,680	12.89 " "
Vapors, igniting	.	.	.	.	172	01.32 " "
Water pipes, attempting to thaw out	.	.	.	.	189	01.45 " "
Total					13,035	100.

INSURANCE AND LOSS FOR FIFTEEN YEARS FROM MARCH 1st TO MARCH 1st OF EACH YEAR. (Page 20)

Total insurance on buildings and contents	.	.	\$126,579,262.48
" loss " " " "	.	.	24,159,880.02
Loss not insured " " " "	.	.	3,101,124.72
Per cent. of total loss not insured on buildings and contents			12.83

The following is a review of grade of losses for fifteen years, each year commencing January 1 and ending December 31.

					(Exhibit E)	
No loss	.	.	.	.	5,098	39.54 per cent.
Under \$100	.	.	.	.	3,614	28.03 " "
\$100 to 500	.	.	.	.	1,986	15.40 " "
\$500 to 1,000	.	.	.	.	675	05.24 " "
\$1,000 to 5,000	.	.	.	.	1,005	07.80 " "
\$5,000 to 10,000	.	.	.	.	221	01.71 " "
\$10,000 to \$15,000	.	.	.	.	88	00.68 " "
Over \$15,000	.	.	.	.	206	01.60 " "
Total					12,893	100. " "



60.45 per cent. of all alarms were for fires with a loss; the average loss for each fire was \$3,068.28.

INSURANCE AND LOSS FOR FIFTEEN YEARS FROM JANUARY 1st to  
JANUARY 1st OF EACH YEAR. (Page 27.)

Insurance on buildings	\$67,138,118.22
Total insurance loss on buildings	5,911,592.88
Loss on buildings not insured	1,171,987.53
Percentage of loss not insured	16.55
Insurance on contents	58,019,996.10
Total insurance loss on contents	14,760,139.59
Loss on contents, not insured	2,073,178.86
Per cent. of loss " "	12.32
Total insurance on buildings and contents	125,158,114.32
" insurance loss on buildings and contents	20,671,732.48
" loss on buildings and contents	23,916,898.86
Per cent. of total loss on buildings and contents, not insured	19.81

SPRINKLERS.

Following is the operations of the department in buildings equipped with the sprinkler system, for the year ending March 1, 1896.

Date.	Street.	Duty Per- formed.	Covers Spread.	Sprink'r Heads replaced	Loss.		Cause.
		H. M.			Building.	Contents.	
May 8, 1895	558-568 Washington,	1.09	3	1	None	None	Sprinkler head bursting.
" 9, "	Rear 46 Wareham,	6.15	0	0	1,055.75	81.00	Fire operating sprinkler heads not replaced owing to system being disabled.
June 28, "	275-279 Congress,	1.57	10	0	Unknown	Unknown	Power belt breaking and breaking sprinkler pipe at joint.
" 29, "	295 Congress,	.52	6	3	None	867.07	Fire operating sprinkler head.
Nov. 27, "	295-297 Congress,	1.30	3	0	Unknown	Unknown	Overflow of water from tank.
Dec. 2, "	31 Milk,	.58	0	1	Unknown	Unknown	Sprinkler head bursting.
Jan. 2, 1896	556 Washington,	1.18	4	2	313.00	*Unoccup'd	Fire operating sprinkler heads.
" 9, "	275 Congress,	.45	0	0	None	None	Breaking of main valve connection.
†Feb. 18, "	65-69 Kingston,	7.30	130	1	1,572.50	19,845.51	Fire operating sprinkler head.
" 18, "	36 Charlestown,	1.22	8	1	None	None	Breaking of sprinkler head by a workman to extinguish the fire.
Totals,		23.36	164	9	\$2,941.25	\$20,793.58	

\*There is a loss claim for smoke damage by an occupant of the building which is not settled.

†The circumstances attending this fire is as follows:—

The engineer of the building entered the same about seven o'clock A. M. and found water dripping through the floors, he ascertained that

there had been a fire on the fifth floor, which the water from one sprinkler head had extinguished; at fifteen minutes past seven o'clock he notified the department by telephone, and they responded; upon arriving in the building it was found that the water had penetrated every floor to the basement; from the quantity of water found in the building, it is reasonable to suppose that the sprinkler had been working for several hours. There was no actual fire loss, as the fire was confined to the rubbish where it originated.

Each wagon of the department carries eleven sprinkler heads and a quantity of fusible links, to replace those that have become disabled from any cause; the water is then allowed to flow into the pipes, so that the sprinkler system is in working order before the department leaves the building.

The same friendly feeling between the Fire and this Department continues to exist.

In conclusion, I desire to express my sincere thanks to all departments or persons who have in any way assisted this Department during the past year.

Respectfully submitted,

SAMUEL ABBOTT, JR.,

*Superintendent.*



## SCHEDULE OF PROPERTY

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES NOS. ONE  
AND TWO, AND IN THE OUTLYING DISTRICTS.

---

Horses . . . . .	10
Wagons "complete" . . . . .	4
Wagons "spare" . . . . .	1
Wagon supply . . . . .	1
Pungs "complete" . . . . .	2
Wagons for Superintendent . . . . .	2
Sleighs " " . . . . .	2
Rubber covers "stock" . . . . .	572
Rubber covers, roof . . . . .	23
Canvas covers for roofs . . . . .	4
Fire extinguishers . . . . .	8
Life-saving blankets . . . . .	4
Sets of patent double harnesses . . . . .	4
Single harnesses . . . . .	2
Wagon poles "extra" . . . . .	2
Wheels "extra" . . . . .	4
Whiffletrees "extra" . . . . .	5
Bedsteads with bedding . . . . .	49
Billiard table "complete" . . . . .	1
Fire hats . . . . .	47
Necessary tools and equipments.	
" stable equipments.	
" extra parts of harnesses.	
" house furniture and fixtures.	
" telegraph apparatus.	
" gas fixtures.	
" supplies.	
" stationery.	

For detailed statement, see Quarterly Report at Superintendent's Headquarters.

# Duty performed by Company No. 1, from March 1, 1895, to March 1, 1896.

Alarms responded to.				Hours on duty.				Covers spread.				Second Section of Company calls.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Months.	Bell.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	H. M.	Extra at Fires.	H. M.	Watching at Fires.	Totals.	On Goods.			On Roofs.			Protecting Goods from Storms.			Totals.			Extinguishers used.	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	COVERING when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous days.	Protecting Roofs.	Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

# Duty performed by Company No. 2, from March 1, 1895, to March 1, 1896.

Months.	Alarms responded to.							Hours on duty.				Covers spread.				Second section of Company calls										Totals.					
	Bell.	Still.	Automatic.	Wagon responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	Watching after Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	1st Alarms. 2d A1's.					Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.		Retained on duty during daytime A. Force.	Extra hazardous days A. Force on duty.	Protecting Roofs.		
																	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.										
March, 1895	52	13	1	35	42	66		H. M. 70.45	H. M. 4.	H. M. 582.25	H. M. 657.10	89	3			92	1														4
April, "	61	5		35	43	66		70.30	6.40	237.	314.10	85	5			90	2				2										3
May, "	62	9	6	48	46	77	2	43.15	1.20	162.30	207.05	43				43		3													
June, "	54	5	1	40	33	60		35.	2.44	34.07	71.51	51	3			54															5
July, "	58	8		42	42	66		51.30		185.00	236.30	42	3			45		3			1										
Aug., "	67	6	1	62	32	74		76.	8.45	225.55	310.40	169	12			181	1														
Sept., "	62	9	1	40	45	72		53.30	59.45	501.37	614.52	120	4	15		139	4			1											7
Oct., "	55	10	4	42	37	69		70.	6.14	207.25	283.39	139	12			151	2	2			2										6
Nov., "	60	7		42	41	67		60.30	1.	535.50	647.20	58	2			60	2					1									8
Dec., "	51	9	1	30	35	61		49.20	17.05	42.30	108.55	21	8			29															1
Jan., 1896	91	11	1	67	59	104	1	77.45		258.30	336.15	54				54	2														3
Feb., "	76	13	4	50	59	92	1	79.13	16.51	172.55	268.59	305	3			308		3													5
Totals .	749	106	20	533	514	874	4	737.18	124.24	3195.44	4057.26	1176	55	15	1246	14	16	1	3	7	0	4	0								40

## OFFICE OF SECRETARY-TREASURER,

40 PURCHASE STREET,

BOSTON, MARCH 2, 1896.

## TO THE PRESIDENT AND DIRECTORS:

*Gentlemen.*—The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1895 to Dec. 31, inclusive, is as follows: The loss to companies for the year 1895 being divided shows:—

Insurance on buildings . . . . .	\$6,657,272.17
Loss on buildings . . . . .	433,404.36
Insurance on contents . . . . .	3,365,799.34
Loss on contents . . . . .	641,073.78
Insurance on marine risks . . . . .	58,799.00
Loss on marine risks . . . . .	56,842.82
Insurance on rents . . . . .	68,350.00
Loss on rents . . . . .	1,363.18

## CAUSES OF FIRES AND ALARMS.

MARCH 1, 1895, TO FEB. 29, 1896, INCLUSIVE.

Buildings, defective . . . . .	26
Causes not otherwise enumerated . . . . .	366
Electricity . . . . .	25
Fireworks . . . . .	36
Gas . . . . .	66
Incendiary (supposed) . . . . .	41
Kerosene oil . . . . .	125
Matches . . . . .	179
Needless . . . . .	184
Sparks . . . . .	99
Spontaneous combustion . . . . .	38
Unknown . . . . .	88
Vapors . . . . .	23
	<hr/>
	1,296

## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March, 1, 1896.

Months.	Alarms.						Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by occ.	Sprinklers operated.	Total.	Covers.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra Covers used.
March, 1895.	61	23	5	4	1	94	135	3	2	78	..	658	..	4	..	..
April, "	71	24	4	1	..	100	142	5	4	82	15	315	30	7	15	..
May, "	77	19	6	..	..	102	78	..	..	67	30	220	..	1	20	..
June, "	74	29	4	1	..	108	101	3	1	55	30	111	..	3	..	..
July, "	71	21	1	3	1	97	83	3	2	63	30	283	30	..	..	..
August, "	93	16	4	1	..	114	315	32	1	97	30	371	..	24	..	2
Sept., "	81	16	5	..	..	102	236	12	4	80	30	633	..	63	..	15
Oct., "	72	19	6	1	..	98	318	13	4	90	..	375	..	42	45	13
Nov., "	68	12	6	..	..	86	212	6	2	74	30	868	45	13	45	..
Dec., "	63	23	8	1	1	96	73	21	..	71	..	253	15	29	15	..
Jan., 1896.	113	50	8	4	..	175	140	7	3	103	..	399	..	6	..	1
Feb., "	85	30	7	1	1	124	629	15	1	134	30	476	45	72	..	4
	929	282	64	17	4	1296	2,462	120	24	997	45	4964	45	266	20	35

Comparison of Fires, Covers Spread, Fire and Watch Duty Performed for sixteen years, each year commencing March 1, and ending the last day of February.

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1,015	2,683	820	05	2,611	30
1892	1,242	2,722	1,061	00	5,554	30
1893	1,189	3,455	1,155	45	5,179	15
1894	1,276	2,730	967	40	5,686	..
1895	1,296	2,462	997	45	4,964	45



# MONTHLY STATEMENT

Of Insurance and Loss on Buildings, Contents, Rents, and Marine, for the year ending March 1, 1896.

Months.	Buildings.		Contents.		Losses not Insured.		Total.		Rents.		Marine.	
	Insurance.	Loss.	Insurance.	Loss.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.
March,	\$ 470,775.00	\$33,430.18	\$ 234,883.23	\$ 49,926.13	\$12,070.00	\$ 8,595.06	\$ 705,658.23	\$104,021.97	\$45,000.00	\$913.63	\$ 100.00	
April,	721,387.74	41,865.01	252,761.00	17,332.09	730.73	1,396.90	974,148.74	61,444.73	350.60	51.00	\$ 5,000.00	2,943.82
May,	570,510.01	7,665.28	125,266.99	10,073.59	2,011.00	1,499.26	695,777.00	21,249.13				
June,	266,700.00	6,279.48	59,256.00	6,877.22	522.50	1,723.00	325,056.00	15,402.20	500.00	94.70		
July,	308,100.00	13,734.78	263,450.00	47,115.47	170.00	2,978.30	561,550.00	63,998.55				
Aug.,	727,400.00	24,495.08	464,715.63	128,085.34	8,776.50	20,064.93	1,192,115.63	181,421.85				
Sept.,	633,580.00	158,816.85	422,952.20	192,112.65	7,623.00	11,047.10	1,056,532.20	369,599.60			38,799.00	
Oct.,	443,673.00	18,477.76	284,225.00	26,830.51	2,962.59	4,480.71	797,898.00	52,760.57				
Nov.,	607,219.68	32,241.01	377,105.93	50,082.50	3,777.08	11,433.78	984,323.61	97,484.46				
Dec.,	333,418.60	30,335.56	74,050.00	11,086.17	909.88	4,626.60	407,468.00	46,868.11			15,000.00	
Jan.,	* 832,005.00	16,219.44	316,200.00	13,487.71	2,965.00	3,356.00	1,148,305.00	36,158.15				
Feb.,	* 952,803.65	67,430.00	882,634.15	172,707.60	40.00	3,698.00	1,835,337.80	243,875.00	1,000.00	100.00		
	\$6,867,572.08	\$451,240.43	\$3,747,500.13	\$725,675.47	\$42,538.28	\$74,800.14	\$10,615,072.81	\$1,294,274.32	\$46,850.00	\$1,159.33	\$58,799.00	\$56,842.82

\*Some unsettled losses and estimated

Comparison of Insurance and Losses for Sixteen Years, each year commencing March 1st, and ending the last day of February.

Year.	Insurance.	Total Loss.	Loss not insured.
1880	\$6,009,756.00	\$1,056,468.00	
1881	3,801,564.11	551,058.82	\$ 56,197.83
1882	5,209,049.83	940,073.69	172,401.59
1883	6,972,141.29	1,100,381.81	163,160.05
1884	6,933,019.24	1,266,944.74	123,389.95
1885	6,371,291.77	1,167,835.28	148,422.58
1886	4,194,491.11	905,080.68	281,344.66
1887	6,440,032.21	734,737.21	150,187.90
1888	7,490,420.52	1,080,217.96	112,338.37
1889	13,014,584.37	5,078,142.18	814,056.39
1890	7,730,043.60	787,577.27	57,404.06
1891	10,109,612.58	1,682,932.14	128,253.03
1892	10,977,922.67	2,293,235.98	150,086.59
1893	16,024,654.12	3,993,121.69	400,126.09
1894	10,694,969.25	1,434,266.25	226,382.23
1895	10,615,072.81	1,294,274.32	117,353.42

## FIRES AND ALARMS.

BY MONTHS, DAYS OF THE WEEK, DAYS OF THE MONTH, AND HOURS OF  
THE DAY, FROM MARCH 1, 1895, TO MARCH 1, 1896.

Months.		Days of Week.		Days of the Month.		Hours of the Day.	
				1	41	6 to 7 A. M.	27
				2	44	7 " 8 "	42
March, 1895.	94	Monday . .	191	3	43	8 " 9 "	44
April "	100	Tuesday .	163	4	65	9 " 10 "	47
May, "	102	Wednesday	186	5	34	10 " 11 "	66
June, "	108	Thursday .	192	6	66	11 " 12 NOON.	57
July, "	97	Friday . .	181	7	43	12 " 1 P. M.	73
August, "	114	Saturday .	223	8	50	1 " 2 "	61
September, "	102	Sunday . .	160	9	40	2 " 3 "	59
October, "	98			10	44	3 " 4 "	64
November, "	86			11	37	4 " 5 "	81
December, "	96			12	39	5 " 6 "	63
January, 1896.	175			13	42	6 " 7 "	83
February, "	124			14	42	7 " 8 "	93
				15	39	8 " 9 "	78
				16	37	9 " 10 "	79
				17	72	10 " 11 "	54
				18	43	11 " 12 MIDN.	52
				19	39	12 " 1 A. M.	38
				20	39	1 " 2 "	30
				21	30	2 " 3 "	23
				22	40	3 " 4 "	29
				23	41	4 " 5 "	25
				24	52	5 " 6 "	28
				25	34		
				26	34		
				27	45		
				28	38		
				29	36		
				30	29		
				31	18		
Totals,	1296		1296		1296		1296

## DISTRICTS WHERE ALARMS WERE GIVEN.

City Proper . . . . .	654
Roxbury District . . . . .	178
Charlestown . . . . .	94
East Boston . . . . .	73
South Boston . . . . .	122
Dorchester . . . . .	82
West Roxbury . . . . .	65
Brighton . . . . .	28
Total . . . . .	1296



# CLASSIFICATION OF COVERS SPREAD.

56 Fires of 1 Cover each . . . 56	5 Fires of 23 Covers each . . 115
30 " " 2 Covers " . . . 60	1 " " 24 " " . . . 24
23 " " 3 " " . . . 69	8 " " 25 " " . . . 200
14 " " 4 " " . . . 56	1 " " 28 " " . . . 28
16 " " 5 " " . . . 80	3 " " 32 " " . . . 96
9 " " 6 " " . . . 54	2 " " 34 " " . . . 68
5 " " 7 " " . . . 35	1 " " 36 " " . . . 36
6 " " 8 " " . . . 48	1 " " 46 " " . . . 46
8 " " 9 " " . . . 72	1 " " 47 " " . . . 47
2 " " 10 " " . . . 20	1 " " 50 " " . . . 50
4 " " 11 " " . . . 44	1 " " 52 " " . . . 52
6 " " 12 " " . . . 72	1 " " 61 " " . . . 61
3 " " 13 " " . . . 39	1 " " 70 " " . . . 70
4 " " 14 " " . . . 56	1 " " 71 " " . . . 71
2 " " 16 " " . . . 82	1 " " 86 " " . . . 86
5 " " 17 " " . . . 85	1 " " 90 " " . . . 90
4 " " 18 " " . . . 72	1 " " 130 " " . . . 130
2 " " 19 " " . . . 38	1 " " 184 " " . . . 184
2 " " 21 " " . . . 42	
Total Fires . . . 226	Total Covers . . 2,460
226 Fires, 2,460 Covers. Average, $10\frac{8.8}{100}$	

## COVERS.

On hand last report . . . . .	508
Received . . . . .	100
	<hr/>
Condemned and destroyed . . . . .	608
	<hr/>
Total covers on hand March 1, 1896 . . . . .	13
	<hr/>
	595

## GRADE OF LOSSES.

Grade of Losses for the year 1895, commencing January 1st, and ending December 31st.

515	Fires with no loss.	Aggregate.	Average.
365	" " loss under \$100 . . . . .	\$12,953.75	\$ 35.49
180	" " " from \$100 to \$500 . . . . .	42,190.46	234.39
55	" " " " \$500 to \$1,000 . . . . .	38,635.03	702.45
84	" " " " \$1,000 to \$5,000 . . . . .	185,191.38	2,204.66
15	" " " " \$5,000 to \$10,000 . . . . .	115,462.44	7,697.49
4	" " " " \$10,000 to \$15,000 . . . . .	51,379.17	12,994.79
	Over \$15,000 as follows:		
1	Fire Jan. 17, Columbus Ave., West End R. R. . . . .	53,965.00	\$748,862.22
1	" Feb. 23, 123 Swett St., W. J. Sullivan . . . . .	16,756.66	
1	" 27, Neponset Ave., St. Anne's Church . . . . .	16,263.00	
1	" Mar. 4, I and East Fourth Sts., Gate of Heaven Church . . . . .	24,951.36	
1	" " 24, Cor. Tremont and West Sts., J.C. McCarthy . . . . .	32,375.20	
1	" Apr. 27, Beacon and Randolph Sts., Albert Geiger . . . . .	29,550.00	
1	" July 23, 65 Summer St., Spitz Bros. & Mork . . . . .	40,694.16	
1	" Aug. 7, 69 Purchase St., Brown & Wales, <i>et al.</i> . . . . .	34,344.80	
1	" " 8, 23 Boylston St., Fisk & Goff, <i>et al.</i> . . . . .	15,560.49	
1	" " 10, 5 Appleton St., Faxon & Co., <i>et al.</i> . . . . .	16,104.28	
1	" " 24, 498 W. First St., Frank L. Young & Kimball . . . . .	72,341.28	49,924.15
1	" Sept. 4, Pier 1, East Boston. storage. etc. ( <i>Also Marine loss, \$38,799</i> ) . . . . .	212,936.66	
1	" " 7, Tremont & Boylston Sts., Masonic Temple . . . . .	132,775.12	
1	" Nov. 14, 200 Congress St., Empire Distilling Co., <i>et al.</i> . . . . .	31,742.27	
1	" Dec. 22, B. & A. R. R. Stock Yards, Brighton . . . . .	18,501.94	56,842.00
1	Marine loss (see tables)		
1234		\$1,195,274.45	

The 719 fires where there was a loss, the average was \$1,662.41.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for fifteen years, commencing January 1, 1881.

Year.	Total Fires.	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average Loss of Total Fires with Loss.
1881	558	344	\$ 467,105.28	\$ 837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,879.62	6,103.15	9,756.84
1890	933	562	1,088,887.29	1,167.08	1,937.62
1891	1,012	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	715	846,395.12	708.70	1,183.76
1893	1,233	684	5,024,765.04	2,654.39	7,346.14
1894	1,233	714	1,726,627.66	1,400.35	2,418.24
1895	1,234	719	1,195,274.45	968.62	1,662.41
Total	12,893	7,795	\$23,917,262.46	\$1,855.05	\$3,068.28

## CAUSES OF FIRES AND ALARMS.

Alarms, false . . . . .	29
"    needless . . . . .	155
Alcohol . . . . .	1
Ashes, hot . . . . .	17
"    "    in wooden receptacles . . . . .	6
Assistance called for . . . . .	4
Attempt to thaw frozen water pipes . . . . .	28
Back draft . . . . .	1
Boiling over of kettle of fat . . . . .	15
"    "    "    "    "    tar . . . . .	3
"    "    "    "    "    meat . . . . .	2
"    "    "    "    "    glue . . . . .	1
Bonfires . . . . .	6
Boys, set by . . . . .	28
Brush fires . . . . .	8
Bursting of water back to ranges . . . . .	4
Burning of paper . . . . .	7
Candles lighted . . . . .	12
Chimney fire . . . . .	24
Cigar stubs lighted . . . . .	13
Cigarettes . . . . .	7
Coals from stove . . . . .	7
Defective chimneys . . . . .	17
"    construction . . . . .	9
"    flues . . . . .	15
"    furnaces . . . . .	2
"    grates . . . . .	1
"    ovens . . . . .	1
"    stoves . . . . .	2
"    stove pipes . . . . .	1
Electricity . . . . .	1
Electric light wires . . . . .	21
"    "    motors . . . . .	3
Explosion of alcohol lamp . . . . .	2
"    "    chemicals . . . . .	1
"    "    express package . . . . .	1
"    "    nitre . . . . .	1
"    "    steam pipes . . . . .	1
Fire crackers . . . . .	34
Fire works . . . . .	2

Friction from machinery . . . . .	2
"    "    malt mill . . . . .	3
Fumigating . . . . .	1
Gas explosions . . . . .	2
"    jets lighted . . . . .	13
"    "    and curtains . . . . .	28
"    leakage . . . . .	17
"    stove . . . . .	6
Gasoline stove . . . . .	7
"    torch . . . . .	1
Grass fires . . . . .	5
Incendiary . . . . .	21
"    supposed . . . . .	20
Kerosene-oil . . . . .	4
"    lamps . . . . .	12
"    "    breaking or upsetting . . . . .	54
"    "    explosion of . . . . .	26
"    glue pots . . . . .	2
"    lanterns . . . . .	2
"    stoves . . . . .	25
Lightning . . . . .	1
Lime slacking . . . . .	4
Matches, careless use of . . . . .	107
"    and children . . . . .	44
"    "    rats . . . . .	28
Overheated boiler . . . . .	6
"    chimney . . . . .	4
"    coffee heater . . . . .	1
"    dry room . . . . .	1
"    furnace . . . . .	17
"    iron . . . . .	1
"    journals . . . . .	2
"    kiln . . . . .	1
"    ovens . . . . .	3
"    stove . . . . .	33
"    steam-pipes . . . . .	4
"    smelters . . . . .	1
Plumbers' furnaces . . . . .	2
Phosphorus . . . . .	1
Rekindling . . . . .	5
Roofers' furnaces . . . . .	2
Rubbish fires . . . . .	7
Smoky chimneys . . . . .	20
"    stoves . . . . .	2
Sprinkler break calls . . . . .	5
Steam escaping . . . . .	1
Spontaneous combustion . . . . .	38

Sparks from boiler . . . . .	2
“ “ curing fish . . . . .	1
“ “ conflagration . . . . .	3
“ “ chimney . . . . .	30
“ “ engine . . . . .	1
“ “ forge . . . . .	6
“ “ fire box . . . . .	1
“ “ furnace . . . . .	3
“ “ locomotive . . . . .	19
“ “ machinery . . . . .	1
“ “ open fire place . . . . .	1
“ “ oven . . . . .	1
“ “ stoves . . . . .	10
“ “ smokers pipes . . . . .	16
“ “ smelters . . . . .	2
“ “ tugboat . . . . .	1
Unknown . . . . .	90
Vapors naphtha . . . . .	14
“ alcohol . . . . .	1
“ benzine . . . . .	3
“ gasoline . . . . .	3
Varnish igniting . . . . .	2
Total . . . . .	1,296

Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for fifteen years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured for fifteen years.

## BUILDINGS.

Year	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	05.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	06.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	08.68	23,478.10	358,459.20	07.00
1884	3,227,819.93	189,168.83	05.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	07.22	24,240.96	246,042.71	09.85
1886	2,733,588.56	275,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	05.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85	05.07	12,302.39	240,236.24	05.12
1889	4,583,384.25	911,382.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.36
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
1893	8,047,857.57	1,289,054.22	16.02	115,994.73	1,405,048.95	8.28
1894	6,849,379.33	636,904.32	9.30	236,195.41	873,159.73	27.05
1895	6,657,272.17	433,404.36	6.51	44,048.45	477,452.81	9.22
Tot.	\$67,138,118.22	\$5,911,592.88	8.80	\$1,171,987.53	\$7,083,580.41	16.55

## CONTENTS.

Year	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$31,813.20	\$336,605.78	09.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,409.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	08.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.81	715,197.05	20.01	76,243.41	791,440.46	09.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
1893	10,332,586.55	3,373,037.42	32.64	246,678.67	3,619,716.09	6.82
1894	3,893,242.42	669,857.10	17.25	183,610.73	853,467.83	21.51
1895	3,365,799.34	641,073.78	19.04	76,816.69	717,890.47	10.70
Tot.	\$58,019,996.10	\$14,760,139.59	25.44	\$2,073,178.86	\$16,833,318.45	12.32

## TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co.'s	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance
1881	\$3,905,227.61	\$420,404.61	16.76	\$467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,253.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,069,738.23	943,130.91	11.69	1,031,076.70	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,511,674.51	14.47
1892	8,481,051.58	731,948.78	8.62	846,395.12	9.97
1893	18,380,444.12	4,662,091.64	25.36	5,024,765.04	27.32
1894	10,742,621.75	1,306,821.42	12.16	1,726,627.55	16.05
1895	10,023,071.51	1,074,478.14	10.72	1,195,343.28	11.92
Tot.	\$125,168,114.32	\$20,671,732.48	16.51	\$23,916,898.86	19.81

Respectfully submitted,

EDWARD SPAULDING, *Secretary.*



# STATISTICS OF ALARMS AND FIRES FOR FIVE YEARS.

Year	Area Popu- lation Sq. Mile. 1890.	Number of Buildings in the City, &c.										Number of Alarms and Fires.									
		Brick, &c., Buildings last Report.	New Brick Build- ings Completed.	Brick Buildings Totally Destroyed.	Total Brick Build- ings.	Frame Buildings last Report.	Frame Buildings Completed (New).	Frame Buildings Totally Destroyed.	Total Frame Buildings.	Grand Total Brick and Frame	Total Alarms.	Brick, Iron, &c.	Frame.	Outside.	Total Fires.	Confined to floor originated.	Confined to Build- ing originated.	Extended to Ad- joining Property.	Extended beyond Adjoining Prop'y.		
1891	37.04	22,700	329	1	22,700	43,800	1	43,800	66,500	980	424	389	87	900	730	780	32	1			
1892	"	23,028	262	13	23,028	45,763	3	45,763	68,791	1196	510	495	89	1094	955	966	38	1			
1893	"	23,267	308	12	23,267	47,371	100	47,371	70,638	1233	500	403	264	1167	761	876	24	3			
1894	"	23,653	328	1	23,653	48,988	11	48,988	72,641	1233	477	400	115	1052	777	897	37	3			
1895	"	23,653	328	1	23,980	48,988	11	50,442	74,402	1234	471	457	96	1024	772	886	40	2			

Total Loss thereon.	Total Insur- ance thereon.	Total Insur- ance Loss thereon.	Loss Per Capita.	No. of Fires to 1000	Per cent. of Fires continued to Build- ing.	Marine Fire Loss and Insurance.										Rents, Fire Loss and Ins.	
						Total Loss thereon.	Total Insur- ance thereon.	Total Insur- ance Loss thereon.	Total Insur- ance there- on.	Total Insur- ance Loss thereon.	Total Loss thereon.	Total Insur- ance there- on.	Total Insur- ance Loss thereon.	Total Loss thereon.	Total Insur- ance there- on.	Total Loss thereon.	Total Insur- ance there- on.
\$1,512,074.51	\$10,447,876.87	\$1,388,877.43	\$3.37	2.00	.86	\$1,208.12	\$3,000.00	\$1,208.12	\$3,000.00	\$1,208.12	\$1,208.12	\$3,000.00	\$1,208.12	\$1,208.12	\$5,325.31	\$5,325.31	\$5,325.31
846,395.12	8,481,051.58	731,948.78	1.89	2.44	.88	25,057.81	58,057.57	25,057.81	58,057.57	25,057.81	25,057.81	58,057.57	25,057.81	25,057.81	17,184.64	17,184.64	17,184.64
5,024,705.04	18,380,444.12	4,662,091.64	11.20	2.60	.75	52,619.32	508,500.00	52,619.32	508,500.00	50,589.32	50,589.32	508,500.00	50,589.32	50,589.32	127,793.41	127,793.41	127,793.41
1,726,627.56	10,742,621.75	1,306,821.42	3.85	2.35	.95	350.00	4,000.00	350.00	4,000.00	350.00	350.00	4,000.00	350.00	350.00	4,651.95	4,651.95	4,651.95
1,195,343.28	10,022,071.51	1,074,478.14	2.67	2.35	.86	58,842.82	58,799.00	58,842.82	58,799.00	56,742.82	56,742.82	58,799.00	56,742.82	56,742.82	1,363.18	1,363.18	1,363.18



## MEDICAL OFFICER'S REPORT.

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BOSTON, MARCH 1, 1896.

SAMUEL ABBOTT, JR.,

*Supt. Boston Protective Dept.*

The annual report of the Medical Officer for this Department for year ending March 1, 1896, is respectfully submitted.

Number of applicants examined for appointment	26
Number of applicants examined for promotion	9
Number of visits to sick or injured members	70
Number of physicians' reports examined	36
Number of special reports	3
Number of accident cases attended	1

The work for each month is as follows:

Months.	Applicants Examined.	Medical Reports.
March	5	3
April	2	2
May	2	2
June	5	2
July	2	5
August	0	3
September	0	3
October	1	5
November	8	0
December	4	0
January	1	5
February	3	4

Of those applying for membership nine (9) were rejected; the following table will explain the causes for such action:

Deaf	1
Valvular disease of heart	3
Disease of lung (consumption)	1
Bronchitis	2
Rapid pulse due to alcohol	1

The character of the injuries from which members of the Department suffered to such an extent as to cause them to be unable to do house or fire duty, were as follows:

Contusion of face	1
Lacerated wound of hand	1

Contusion of knee . . . . .	1
Contusion of back and fractured rib . . . . .	1
Poisoned wound, hip . . . . .	1
Poisoned wound, toe . . . . .	1
Sprained ankle . . . . .	1
Fractured ribs and secondary pleurisy . . . . .	1
Inguinal hernia . . . . .	1
Contusion of foot . . . . .	1
Injury to neck and traumatic . . . . .	1
Strain of ankle . . . . .	1
Strain of shoulder . . . . .	1
Abrasions . . . . .	1

The following table will show cause for absence from duty on account of sickness:

Neuralgia (due to ulcerated tooth) . . . . .	1
La Grippe . . . . .	11
Articular rheumatism . . . . .	1
Sub-acute synoritis . . . . .	1
Consumption . . . . .	1
Acute follicular tonsillitis . . . . .	1
Gonorrhœa and epididymitis . . . . .	1
Pharyngitis . . . . .	3
Acute indigestion . . . . .	4
Cholera morbus . . . . .	3
Abdominal neuralgia . . . . .	1

The work for the year has been conducted according to the plan of previous years. The requiring an examination and certificate from the medical officer of members after sickness or injury has been found of advantage.

Many of the members have been visited after their return to duty and suggestions given in regard to their health.

## SPECIAL REPORTS.

At the request of Captain Brown a member was visited who had reported as being sick. Your medical officer was unable to find the member at his home. A full report of the case was submitted.

The department has not been called upon to witness any serious illness or injury to any of its members during the year just past, with the exception of one injury which it was feared would be such as to cause permanent disability; this case, however, it gives me pleasure to report, is now improved to such a degree that the member is able to report for duty.

Your medical officer would take this opportunity of thanking both officers and men of the Department for their kindly treatment toward him in the discharge of the duties of this office.

WM. F. TEMPLE, M. D.

*Medical Officer Boston Protective Department.*

## EXHIBIT A.

Review of Districts where alarms were given, for fifteen years, from March 1st to March 1st, of each year.

YEARS.		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	Total	Per Cent
City Proper	-	288	285	347	362	349	360	412	464	440	487	504	681	626	595	652	6,852	52.57
Roxbury	-	49	53	63	70	65	82	87	79	74	70	106	117	120	161	178	1,374	10.54
Charlestown	-	35	41	46	42	48	41	62	57	63	61	104	121	107	118	93	1,072	08.22
East Boston	-	45	50	51	44	47	51	67	51	61	51	57	63	75	76	73	862	06.61
South Boston	-	29	29	50	51	42	56	73	79	84	87	98	117	58	114	122	1,089	08.35
Dorchester	-	25	27	38	47	39	26	30	31	31	61	54	60	60	118	81	728	05.59
West Roxbury	-	33	17	33	12	45	24	38	34	44	41	63	55	22	68	65	594	04.56
Brighton	-	13	5	18	16	32	21	27	23	18	28	24	28	121	26	28	428	03.28
Cambridge	-	2	1	1	2	1	1	1	1	1	1	1	1	1	1	3	9	}
Chelsea	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	1	
Brookline	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	
Everett	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	
Harbor	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	
Milton	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	}
Newton	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Somerville	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Watertown	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	}
Total Alarms	-	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	13,035	100

## EXHIBIT B.

Review of causes of alarms and fires, for fifteen years, from March 1st to March 1st, of each year.

CAUSES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	Total	Per Ct.
Ashes, in wooden receptacles, hot	7	9	14	5	9	8	13	21	4	14	11	16	21	11	23	186	01.43
Buildings, defective	23	26	21	24	21	23	24	30	24	25	24	33	32	33	41	404	03.10
Causes not otherwise enumerated	102	81	117	96	129	98	136	122	151	233	308	285	255	263	249	2625	20.14
Combustion, spontaneous	17	34	30	18	13	23	29	32	21	34	37	56	32	37	38	448	03.44
Electricity	0	0	4	3	3	7	8	8	6	15	10	27	35	35	25	186	01.43
Fireworks	7	2	3	13	6	11	39	45	5	12	19	16	26	30	36	270	02.07
Gas	28	18	21	20	25	21	23	34	30	37	54	53	53	77	66	560	04.30
Incendiary (supposed)	48	35	64	57	46	63	44	37	48	22	40	51	32	59	41	687	05.27
Kerosene oil	36	39	46	65	85	69	75	87	120	90	109	138	172	134	125	1390	10.56
Matches	65	60	94	78	65	102	147	110	110	90	135	150	166	175	179	1730	13.27
Needles	53	57	66	73	47	59	59	79	94	46	36	75	74	101	165	1073	08.23
Overheating	26	27	26	42	40	39	39	45	40	61	63	58	60	69	81	716	05.49
Sparks	31	27	33	36	34	23	39	40	35	41	44	93	61	78	98	719	05.61
Unknown	65	78	85	94	123	90	107	111	121	188	116	145	140	129	88	1680	12.89
Vapors igniting	7	12	11	4	14	13	5	10	10	6	7	11	15	24	23	172	01.32
Water Pipes, attempting to thaw	6	5	13	21	9	7	11	8	1	4	5	35	15	21	28	189	01.45
Total	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	13,035	100.

## EXHIBIT C.

Review of hours in day when alarms were received, for fifteen years, from March 1st to March 1st, of each year.

Years.		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	Total	Per Ct.
Day Service.	6 to 7 A.M.	7	10	11	10	11	17	17	16	10	12	16	22	33	28	27	247	2,519
	7 " 8 " "	13	10	12	21	19	14	25	18	17	33	25	25	27	28	42	329	
	8 " 9 " "	14	18	20	22	31	22	21	23	37	34	26	32	41	31	44	416	
	9 " 10 " "	23	14	25	23	15	27	25	38	22	30	36	44	49	48	47	466	19.32
	10 " 11 " "	15	24	24	26	34	23	32	26	26	43	36	51	66	48	66	540	
	11 " 12 noon	23	17	24	28	32	19	26	36	29	37	39	46	42	66	57	521	
	12 " 1 P.M.	27	24	29	22	29	27	30	33	27	36	36	40	62	61	73	556	3,078
	1 " 2 " "	13	22	23	33	28	23	32	20	29	34	48	63	35	63	61	527	
	2 " 3 " "	18	18	38	27	29	21	35	36	28	38	51	48	42	57	59	545	
	3 " 4 " "	24	16	39	28	28	13	39	41	31	40	46	70	53	66	64	598	28.22
	4 " 5 " "	23	22	31	34	28	8	45	45	42	56	50	87	67	62	81	681	
	5 " 6 " "	48	25	40	42	45	20	44	53	59	53	74	74	71	60	63	771	
Night Service.	6 " 7 " "	43	39	46	37	44	49	35	55	55	58	64	90	80	80	83	858	4,789
	7 " 8 " "	30	39	49	50	54	55	63	60	62	57	91	95	80	95	93	973	
	8 " 9 " "	39	35	45	45	42	42	58	58	67	91	82	88	100	96	78	966	
	9 " 10 " "	32	24	36	49	40	31	56	57	54	62	58	65	71	80	79	794	36.74
	10 " 11 " "	38	28	28	40	29	37	39	37	57	48	50	66	58	67	54	676	
	11 " 12 Md'n	17	23	31	17	23	26	45	35	42	37	29	50	42	53	52	522	
	12 " 1 A.M.	24	19	20	20	20	33	33	26	34	25	36	46	45	38	38	457	2,019
	1 " 2 " "	15	23	23	15	27	30	24	32	29	30	25	45	26	35	30	409	
	2 " 3 " "	8	20	21	16	24	26	22	20	21	19	34	24	26	31	23	335	
	3 " 4 " "	7	17	13	16	12	35	18	29	18	22	23	27	35	30	29	331	15.72
	4 " 5 " "	13	14	10	17	10	28	20	13	14	10	21	30	20	29	25	274	
	5 " 6 " "	7	9	10	10	15	36	14	12	10	17	19	14	18	24	28	243	
Totals		521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	13,035	100

## EXHIBIT D.

Review of days of the week when alarms were received, for fifteen years, from March 1st to March 1st, of each year.

Days.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	Total	Per Ct.
Monday	83	65	88	93	85	109	139	113	98	111	130	180	143	179	191	1807	13.86
Tuesday	73	74	107	89	84	98	98	109	131	150	165	179	201	166	163	1887	14.48
Wednesday	76	87	101	98	102	95	113	130	118	122	155	187	199	227	186	1996	15.31
Thursday	65	52	84	90	98	87	131	115	115	147	136	202	171	198	192	1883	14.45
Friday	84	74	98	100	109	79	111	123	138	162	139	157	157	180	181	1892	14.52
Saturday	65	81	88	93	112	103	122	133	120	137	169	189	155	171	223	1961	15.04
Sunday	75	77	82	85	79	91	84	96	100	93	121	148	163	155	160	1609	12.34
Total	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	13,035	100.

## EXHIBIT E.

Review of grade of losses for fifteen years, commencing January 1st and ending December 31st, of each year.

Years	Total Al'm	No Loss	Under \$100	\$100 to \$500	\$500 to \$1000	\$1000 to \$5000	\$5000 to \$10,000	\$10,000 to \$15,000	Over \$15,000	Total Fires with Loss	Average loss to Total fires with loss.
1881	558	214	156	84	32	47	11	7	7	344	\$1,357.86
1882	502	173	124	87	32	54	13	5	14	329	2,914.39
1883	641	270	124	109	30	64	14	14	16	371	3,053.86
1884	633	235	169	93	46	57	14	3	16	398	2,766.96
1885	655	258	167	98	41	62	11	4	14	397	3,103.91
1886	687	239	217	125	39	43	12	3	9	448	2,431.24
1887	754	294	197	115	51	65	16	6	10	460	1,500.98
1888	834	280	262	140	45	72	12	3	20	554	1,862.23
1889	788	294	220	137	46	54	20	5	12	494	9,756.84
1890	933	371	283	140	39	68	15	3	14	562	1,937.52
1891	1012	406	307	130	45	83	16	9	16	606	2,494.51
1892	1196	481	350	185	64	83	14	9	10	715	1,183.76
1893	1233	549	342	161	50	86	22	5	18	684	7,346.14
1894	1233	519	331	202	60	83	16	8	14	714	2,418.24
1895	1234	515	365	180	55	84	15	4	16	719	1,662.41
Total	12,893	5098	3614	1986	675	1005	221	88	206	7795	\$3,068.28
Per Ct.	100.	39.54	28.03	15.40	05.24	07.80	01.71	00.68	01.60	60.45	











TWENTY-THIRD

ANNUAL REPORT

OF THE

Boston Protective Department,

From March 1, 1896, to March 1, 1897.



TWENTY-THIRD  
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Boston Protective Department,

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## OFFICERS.

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*President :*

FRED'K B. CARPENTER.

*Vice-President :*

E. E. PATRIDGE.

*Secretary-Treasurer :*

EDWARD SPAULDING.

*Directors.*

TO SERVE UNTIL MARCH 1897.

E. E. PATRIDGE.

C. H. PORTER.

T. L. O'BRIEN.

TO SERVE UNTIL MARCH 1898.

ROBERT A. BOIT.

ARTHUR W. POPE.

FRED'K B. CARPENTER.

TO SERVE UNTIL MARCH 1899.

A. L. BARBOUR.

GEO. A. EASTMAN.

W. H. ELLISON.





BOSTON, March 10th, 1897.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT :—

The Directors submit herewith the 23d Annual Report of the Department, with the reports of the Superintendent, Secretary, Treasurer and Medical Officer, and the usual statistical tables.

The Directors beg leave to call the attention of the members of the Department to the fact that for the first time in the history of this organization, through the courtesy of the management of the Street Railway Company operating in Boston, the active members of the corps are allowed to ride upon the cars without payment of fare while wearing the uniform of the Department.

The Board recommend, first, that the active duties of the Department be continued for another year; second, that the Directors be authorized to expend for the maintenance of the Department a sum not exceeding Sixty-five Thousand Dollars.

For the Directors,

FRED'K B. CARPENTER,

*President.*

**TREASURER'S**  
**RECEIPTS AND EXPENDITURES OF THE BOSTON**

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1897.		
March.	By Cash on hand, Balance . . . . .	\$ 8,219.88
	Balance of Assessment January 1, 1895 . . . . .	136.74
	Balance of Assessment July 1, 1895 . . . . .	148.13
	Balance of Assessment January 1, 1896 . . . . .	20,087.70
	Six Months' Assessment July 1, 1896 . . . . .	31,535.11
	Six Months' Assessment January 1, 1897 . . . . .	29,582.84
	Interest Eliot National Bank . . . . .	259 51
	Cash received for Watch Duty . . . . .	908.76
	Cash received for Tools Lost . . . . .	2.35
	Cash received for Automatic Credit . . . . .	16.37
	Cash received for Horse Sold . . . . .	70.00
	Cash received for Old Material . . . . .	25.00
		<hr/>
		\$90,992.39

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**NET RUNNING EXPENSES.**

March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	28,288.46
March, 1881, to March, 1882 . . . . .	26,593 69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833 64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	51,681.42
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08
March, 1893, to March, 1894 . . . . .	53,655.41
March, 1894, to March, 1895 . . . . .	56,125.42
March, 1895, to March, 1896 . . . . .	61,423.48
March, 1896, to March, 1897 . . . . .	60,171.90

## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1897.

## To Cash paid:—

Pay-roll, Permanent force, Company No. 1 . . .	\$17,203.75	
Auxiliary " " " . . .	4,289.04	
Call " " " . . .	600.00	
Permanent " " No. 2 . . .	15,380.36	
Auxiliary " " " . . .	4,201.52	
Call " " " . . .	1,008.13	
Secretary, Treasurer and Office . . .	2,546.06	
Medical Officer and Bills . . .	614.70	
Rent and Taxes of Houses . . .	5,574.10	
Hay and Grain . . .	965.15	
Wagon and Harness Repairs . . .	789.19	
Horse shoeing . . .	494.95	
Fuel . . .	552.67	
Gas . . .	519.20	
Washing . . .	385.91	
Supplies . . .	251.99	
New England Telephone and Telegraph Co. . .	848.60	
Automatic Fire Alarm and Electric Apparatus . . .	251.20	
Water Tax . . .	145.30	
Repairs and Furnishing of Houses . . .	1,148.05	
Veterinary Services . . .	38.62	
Sundries . . .	278.16	
Directors' Meetings . . .	93.00	
Printing and Stationery . . .	1,757.66	
Advertising Annual Meeting . . .	74.25	
Auditors' fees . . .	50.00	
Surety Bond . . .	75.00	
Employers' Liability . . .	438.65	
Horses purchased . . .	525.00	
New Extinguishers . . .	44.00	
		\$61,144.23
Paid for watch duty . . .		309.66
Assessments remitted . . .		12.61
Balance due for Assessment of January, 1897 . . .		20,692.89
Suspense Account Old Assessments Overdue . . .		239.16
Balance, Cash on Hand . . .		8,593.84
		<u>\$90,992.39</u>

E. &amp; O. E.

EDWARD SPAULDING, *Treasurer.*

BOSTON, March, 12, 1897.

Audited and found correct to date.

 FRED'K W. PORTER, }  
 EDWARD D. BLAKE, } *Auditing Committee.*

## SUPERINTENDENT'S REPORT.

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HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT., No. 40 PURCHASE ST. }

BOSTON, March 1st, 1897.

TO THE PRESIDENT AND BOARD OF DIRECTORS:

*Gentlemen:* In compliance with Article IV. of By-Laws of the corporation of the Boston Protective Department, authorized by an Act entitled "An Act to incorporate the Boston Protective Department," passed March 9, 1874, amended February 4, 1879, I herewith submit the Twenty-third Annual Report of operations of the Department for the year 1896, ending March 1, 1897.

The several tables of statistics heretofore submitted, have been extended to include the period above mentioned. (See Secretary's Report and Exhibits.)

### ORGANIZATION.

The organization of the Department continues the same as last year.

#### BUILDINGS, ALARMS, FIRES, INSURANCE AND LOSS FOR 1896.

On January 1, 1896, there were 23,980 brick, stone, iron, etc., and 50,442 frame buildings in the City of Boston, making a total of 74,422 buildings; during the year there were 337\* brick, stone, iron, etc., and 1,498\* frame buildings completed. 1 brick, stone, iron, etc., and 21 frame buildings were totally destroyed by fire, †24 brick and †46 frame buildings were demolished on account of the North End Park, and Pleasant Street entrance to subway, making the total number of buildings at the end of the year 24,292 brick, stone, iron, etc., and 51,873 frame: grand total, 76,165 buildings.

The total alarms during the year 1896 (January 1st to December 31st inclusive) were 1397 of which 1132 were for fires; of these 546 occurred in brick, stone, iron, etc., buildings, 485 in frame buildings, and 101 outside; the number of fires to 1,000 population were 2.28.

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\*By courtesy of Inspection of Buildings Department of City of Boston.

†See page 28.

Of these fires 831 were confined to the floor where they originated, 986 to the building where they originated, 34 extended to adjoining property, and 11 extended beyond adjoining property; the per cent. of fires confined to buildings where they originated was 87.00.

The total loss on buildings and contents was \$1,367,165.92; total insurance, \$13,215,326.97, and the total insurance loss was \$1,263,934.19; the above was divided as follows:—

Total loss on buildings . . . . .	\$623,703.63
Total insurance loss on buildings . . . . .	589,103.88
Total insurance on buildings . . . . .	9,154,604.15
Per cent of total loss not insured on buildings . . . . .	05.54
Total loss on contents . . . . .	743,462.29
Total insurance loss on contents . . . . .	674,830.31
Total insurance on contents . . . . .	4,060,722.82
Per cent of total loss, not insured, on contents . . . . .	09.23

The loss per capita was \$2.75, which does not include the Marine Fire and Rent losses.

The total Marine fire loss was \$13,752.07.

On ships, vessels and cargoes paid by insurance companies \$13,652.07.

The total insurance thereon was \$239,465.00.

The total Rent loss was \$16,366.28, and the total insurance thereon was \$128,700.00.

Total loss from sprinkler breaks was \$2,525.38, insurance thereon \$53,000.00.

The per cent of grade of alarms and losses for 1896 were as follows:—

41.80	had no loss.
27.42	the loss was under \$100.
15.82	“ “ “ from \$100 to \$500.
04.58	“ “ “ “ \$500 to \$1,000.
07.30	“ “ “ “ \$1,000 to \$5,000.
01.58	“ “ “ “ \$5,000 to \$10,000.
00.14	“ “ “ “ \$10,000 to \$15,000.
01.36	“ “ “ over \$15,000.

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100

The per cent of causes of alarms and fires for 1896 were as follows:—

01.83	was ashes in wooden receptacles hot.
02.98	“ defective buildings.
16.03	“ carelessness not otherwise enumerated.
03.82	“ electricity.
02.21	“ fireworks.
02.44	“ gas.
05.27	“ supposed incendiary.
04.50	“ kerosene-oil.

12.75	was matches.
12.83	" needless.
13.36	" overheating.
05.19	" sparks.
06.18	" spontaneous combustion.
08.93	" vapors igniting.
00.99	" unknown.
00.69	" water pipes attempting to thaw.

100

A comparison of the above causes of alarms and fires with the year 1895, shows that those caused by vapor igniting, needless alarms, spontaneous combustion and electricity, increased considerable, and hot ashes and fireworks increased slightly. Those where the cause was unknown or caused by kerosene-oil, carelessness and gas were diminished considerably, while attempting to thaw out water pipes, matches, sparks and defective construction of buildings were diminished slightly. Supposed incendiary cause was the same.

The operations of the department for the year ending March 1st, 1897 are as follows:—

		Co. No. 1.	Co. No. 2.
Alarms.	{ Bell . . . . .	408	780
	{ Still . . . . .	56	104
	{ Automatic . . . . .	45	13
Responded to by	{ Wagon . . . . .	417	564
	{ Callmen . . . . .	169	519
Total alarms		509	897
Hours Duty	{ At fires . . . . .	462.28	814.56
	{ After fires protecting goods . . . . .	331.58	65.52
	{ Watch . . . . .	1,940.59	1,616.40
	{ Total . . . . .	2,735.25	2,497.28
Covers Used	{ On goods . . . . .	1,660	1,052
	{ " protecting from storms . . . . .	89	5
	{ On roofs . . . . .	162	70
	{ Total . . . . .	1,911	1,127
Extinguishers used		8	22

*Second Section (in section) Called in Service.*

First Alarm	{ When 1st out section was at a fire	5	15
	{ When all other sections was at a fire	1	2
	{ When covering a company district	0	1
Second Alarms	{ 2d alarms . . . . .	11	7
Telephone calls		13	6
Messenger calls		2	0
Covering,	{ When both sections of a company were at at a fire . . . . .	10	5



Auxiliary Force retained on day duty after a fire	7	6
“ “ “ “ “ extra hazardous days . . . . .	2	1
Auxiliary force reporting at a fire during daytime	1	0
Protecting roofs . . . . .	4	0
	<hr/>	<hr/>
Total	56	43

The total number of alarms and fires was 1,310, it being 34 more than last year.

There were 1,075 $\frac{3}{10}$  hours' fire service, 3557 $\frac{3}{10}$  hours' watch duty, and 397 $\frac{3}{10}$  hours' service, protecting buildings and contents from storms equivalent to 209 days of twenty-four hours each, 15 hours and 5 minutes, it being 49 days, 57 hours and 45 minutes less, in comparison with the previous year. There were 2712 covers used in covering goods at fires, 94 on goods and 232 on roofs, protecting the buildings and contents after fires from additional damage by storms; which makes a total of 3,038 covers used; representing 656,208 square feet, it being 90,936 square feet more than was spread last year.

The following is a review of alarms and fires in Districts, Hours of Day, Days of Week, and Causes of same, insurance and loss for sixteen years from 1881 to 1896 inclusive; commencing March 1, and ending the last day of February of each year.

	DISTRICTS.	(Exhibit A)
City Proper . . . . .	7,515	or 52.39 per cent.
Roxbury . . . . .	1,548	“ 10.79 “ “
South Boston . . . . .	1,203	“ 08.39 “ “
Charlestown . . . . .	1,177	“ 08.20 “ “
East Boston . . . . .	928	“ 06.47 “ “
Dorchester . . . . .	812	“ 05.66 “ “
West Roxbury . . . . .	656	“ 04.58 “ “
Brighton . . . . .	469	“ 03.27 “ “
Assistance rendered . . . . .	37	“ 00.25 “ “
	<hr/>	<hr/>
	14,345	100



## HOURS IN DAY WHEN ALARMS WERE RECEIVED. (Exhibit C)

Day-Time.	6 to 7	A. M.	.	.	.	.	.	265	2,773	19.33 per cent.
	7 to 8	"	.	.	.	.	.	375		
	8 to 9	"	.	.	.	.	.	460		
	9 to 10	"	.	.	.	.	.	508		
	10 to 11	"	.	.	.	.	.	594		
Night-Time.	11 to 12	NOON	.	.	.	.	.	571	4,050	28.23 per cent.
	12 to 1	P. M.	.	.	.	.	.	606		
	1 to 2	"	.	.	.	.	.	585		
	2 to 3	"	.	.	.	.	.	614		
	3 to 4	"	.	.	.	.	.	662		
	4 to 5	"	.	.	.	.	.	736	5,293	36.90 per cent.
	5 to 6	"	.	.	.	.	.	847		
	6 to 7	"	.	.	.	.	.	953		
	7 to 8	"	.	.	.	.	.	1078		
	8 to 9	"	.	.	.	.	.	1044		
	9 to 10	"	.	.	.	.	.	884	2,229	15.54 per cent.
	10 to 11	"	.	.	.	.	.	752		
	11 to 12	MIDNIGHT	.	.	.	.	.	582		
	12 to 1	A. M.	.	.	.	.	.	489		
	1 to 2	"	.	.	.	.	.	455		
2 to 3	"	.	.	.	.	.	367	100.		
3 to 4	"	.	.	.	.	.	360			
4 to 5	"	.	.	.	.	.	293			
5 to 6	"	.	.	.	.	.	265			
Total								14,345		

65 per cent. of alarms and fires have occurred between the hours of 12 o'clock noon and 12 o'clock midnight.

## DAYS OF WEEK. (Exhibit D)

Mondays	1,995	13.91 per cent.
Tuesdays	2,067	14.41 " "
Wednesdays	2,184	15.23 " "
Thursdays	2,030	14.15 " "
Fridays	2,115	14.74 " "
Saturdays	2,182	15.21 " "
Sundays	1,772	12.35 " "
Total,	14,345	100.

## CAUSES OF ALARMS AND FIRES. (Exhibit B)

Ashes; in wooden receptacles hot	210	01.46 per cent.
Buildings, defective	443	03.09 " "
Causes not otherwise enumerated	2,835	19.76 " "
Combustion, spontaneous	498	03.47 " "
Electricity	215	01.50 " "
Fireworks	302	02.11 " "
Gas	629	04.38 " "
Incendary, supposed	746	05.20 " "
Kerosene oil	1,557	10.85 " "
Matches	1,898	13.23 " "
Needless	1,248	08.70 " "

Overheating . . . . .	784	05.47 per cent.
Sparks . . . . .	800	05.58 " "
Unknown . . . . .	1,797	12.53 " "
Vapors, igniting . . . . .	185	01.29 " "
Water pipes, attempting to thaw out . . . . .	198	01.38 " "
Total,	14,345	100.

INSURANCE AND LOSS FOR SIXTEEN YEARS FROM MARCH 1st TO MARCH  
1st OF EACH YEAR. (Page 20)

Total insurance on buildings and contents . . . . .	\$139,185,530.65
" loss " " " " " . . . . .	25,363,413.28
Loss not insured " " " " " . . . . .	3,190,410.58
Per cent. of total loss not insured on buildings and contents	12.58

The following is a review of grade of losses for sixteen years, each year commencing January 1 and ending December 31.

	(Exhibit E)
No loss . . . . .	5,682 39.76 per cent.
Under \$100 . . . . .	3,997 27.97 " "
\$100 to 500 . . . . .	2,207 15.44 " "
\$500 to 1,000 . . . . .	739 05.17 " "
\$1,000 to 5,000 . . . . .	1,107 07.75 " "
\$5,000 to 10,000 . . . . .	243 01.70 " "
\$10,000 to 15,000 . . . . .	90 00.63 " "
Over \$15,000 . . . . .	225 01.53 " "
Total,	14,290 100. " "

60.24 per cent. of all alarms were for fires with a loss; the average loss for each fire was \$2,937.27.

INSURANCE AND LOSS FOR SIXTEEN YEARS FROM JANUARY 1st TO  
JANUARY 1st OF EACH YEAR. (Page 27.)

Insurance on buildings . . . . .	\$76,292,722.37
Total insurance loss on buildings . . . . .	6,500,696.76
Loss on buildings not insured . . . . .	1,206,587.28
Percentage of loss not insured . . . . .	15.65
Insurance on contents . . . . .	62,080,718.92
Total insurance loss on contents . . . . .	15,434,969.90
Loss on contents not insured . . . . .	2,141,810.84
Per cent. of loss " " " " " . . . . .	12.18
Total insurance on buildings and contents . . . . .	138,373,441.29
" " loss on buildings and contents . . . . .	21,935,666.66
" loss on buildings and contents . . . . .	25,284,064.78
Per cent. of total loss on buildings and contents, not insured . . . . .	13.24

## SPRINKLERS.

Following is the operations of the department in buildings equipped with the sprinkler system, for the year ending March 1, 1897.

Date.	Street.	Duty Performed	Covers Spread.	Sprinkler Heads replaced	Loss.		Cause.
		H. M.			Building.	Contents.	
9, 1896	130-132 Charlestown	5.32	51	4	\$60.00	\$2,045.59	Fire operated sprinkler heads.
4, "	2565 Washington,	1.29	2	6	None	None	Fire operated sprinkler heads.
5, "	30 Winter	not	not	ified.	None	519.78	Defective pipe hangers breaking.
21, "	477 Washington,	2.27	16	1	355.00	1,650.60	Breaking of sprinkler head by employee.
16, "	566 Washington,	.54	2	1	None	None	In moving desk striking sprinkler head.
24, "	558 Washington,	1.52	0	1	None	None	Freezing of water in pipe.
26, "	597-603 Washington,	1.47	0	1	None	None	Unknown.
	Totals,	14.01	71	13	\$415.00	\$4,215.97	

The Department is marking with brass tags the necessary valves in each sprinkler system, to insure a prompt relief of water from the pipes, after a fire has been extinguished; the tags are of different designs and suitably marked for the valve to which they are to be attached; the difference in designs will prevent mistakes, as the officer shutting or opening the valve will know it by the design of tag without consulting the marks thereon. At the main supply and section valves a brass index tag will be attached, which will indicate the number of valves necessary to close the system, and the floors where the valves are situated.

The same friendly feeling between the Fire and this Department continues to exist.

In conclusion, I desire to express my sincere thanks to all departments or persons who have in any way assisted this Department during the past year.

Respectfully submitted,

SAMUEL ABBOTT, JR.  
*Superintendent.*

## SCHEDULE OF PROPERTY.

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES NOS. ONE  
AND TWO, AND IN THE OUTLYING DISTRICTS.

---

Horses . . . . .	10
Wagons "complete" . . . . .	4
Wagons "spare" . . . . .	1
Wagon supply . . . . .	1
Pungs "complete" . . . . .	2
Wagons for Superintendent . . . . .	2
Sleighs " " . . . . .	2
Rubber covers "stock" . . . . .	556
Rubber covers, roof . . . . .	21
Canvas covers for roofs . . . . .	4
Fire extinguishers . . . . .	8
Life-saving blankets . . . . .	4
Sets of patent double harnesses . . . . .	4
Single harnesses . . . . .	2
Wagon poles "extra" . . . . .	2
Wheels "extra" . . . . .	4
Whiffletrees "extra" . . . . .	5
Bedsteads with bedding . . . . .	49
Billiard table "complete" . . . . .	1
Fire hats . . . . .	47
Necessary tools and equipments.	
" stable equipments.	
" extra parts of harnesses.	
" house furniture and fixtures.	
" telegraph apparatus.	
" gas fixtures.	
" supplies.	
" stationery.	

For detailed statement, see Quarterly Report at Superintendent's  
Headquarters.

# Duty performed by Company No. 1, from March 1, 1896, to March 1, 1897.

Months.	Alarms responded to.							Hours on duty.			Covers spread.				Second Section of Company calls.										Totals.						
	Bell.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	Watching at Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.		Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous, days.	Protecting Roofs.		
March, 1896	47	6	3	52	9	56		H. M. 54.59	H. M. 23.07	H. M. 471.58	H. M. 550.04	303	20	5	328			1				1		4	2						7
April, "	32	3	8	36	11	43	1	34.30	6.	149.	189.30	153	10	1	164			1				2	2			1					5
May, "	50	5	2	46	41	57		66.19	22.19	103.38	192.16	205	27		232						1	2	1								7
June, "	31	5	1	32	10	37		33.46	11.31	76.	121.17	134	15		149							1	1								3
July, "	41	9	2	43	18	52	1	40.30	15.33	97.40	153.43	177	11		188		2	2			3	2	2								10
Aug., "	29	5	3	24	15	37		41.	191.46	158.07	390.53	124	25	63	212																3
Sept., "	26	1	3	25	10	30		17.15	13.	38.	68.15	28	5		33			1													1
Oct., "	29	5	5	29	14	39	1	32.57	2.34	144.36	180.07	53	5		58							1									3
Nov., "	25	5	4	26	9	34		21.32	14.12	229.55	265.39	130	8		138			2	1												1
Dec., "	48	7	5	47	19	60		56.03	14.32	319.11	389.46	125	10		135																5
Jan., 1897	27	3	4	29	8	34		34.43	8.54	103.16	146.53	100	7	14	121		1														6
Feb., "	23	2	5	28	5	30		28.54	8.30	49.38	87.02	128	19	6	153																1
Totals . . .	408	56	45	417	169	509	3	462.28	331.58	1940.59	2735.25	1660	162	89	1911		8	5	1		11		13	2	10	1	7	2	4		56



# Duty performed by Company No. 2, from March 1, 1896, to March 1, 1897.

Months.	Alarms responded to.						Hours on duty.			Covers spread.				Second section of Company calls.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	Bell.	Still.	Automatic.	Wagon responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	H. M.	Watching at Fires.	H. M.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	1st Alarms.					2d Al's.					When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during day time.	Auxiliary Force on duty extra hazardous days.	Protecting Roofs.	Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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March, 1896	92	11		73	51	103		102.12	7.28	446.			555.40	117	5	5	127	4		4	1		1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

OFFICE OF SECRETARY-TREASURER,  
40 PURCHASE STREET,

BOSTON, MARCH 1, 1897.

TO THE PRESIDENT AND DIRECTORS:

*Gentlemen.*—The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1896 to Dec. 31, inclusive, is as follows:

Insurance on buildings . . . . .	\$9,154,604.15
Loss on buildings . . . . .	589,103.88
Insurance on contents . . . . .	4,060,722.82
Loss on contents . . . . .	674,830.31
Insurance on marine risks . . . . .	239,465.00
Loss on marine risks . . . . .	13,652.07
Insurance on rents . . . . .	123,700.00
Loss on rents . . . . .	16,366.28

CAUSES OF FIRES AND ALARMS.

MARCH 1, 1896, TO FEB. 28, 1897, INCLUSIVE.

Buildings, defective . . . . .	39
Causes not otherwise enumerated . . . . .	322
Electricity . . . . .	29
Fireworks . . . . .	32
Gas . . . . .	69
Incendiary (supposed) . . . . .	59
Kerosene oil . . . . .	158
Matches . . . . .	168
Needless . . . . .	175
Sparks . . . . .	81
Spontaneous combustion . . . . .	50
Unknown . . . . .	11
Vapors . . . . .	117
	<hr/>
	1,310



## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March, 1, 1897.

Months.	Alarms.						Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by oct.	Sprinklers operated.	Total.	Covers.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra Covers used.
March, 1896	103	20	5	3	..	131	420	25	4	125	30	917	58	30	35	10
April, "	87	15	9	1	..	112	214	14	..	84	30	197	40	7	..	1
May, "	86	42	2	4	..	134	301	32	..	116	26	239	88	25	06	..
June, "	73	15	3	..	..	91	259	21	..	79	..	126	35	17	46	..
July, "	113	34	3	..	..	150	326	23	2	112	45	380	30	28	31	..
August, "	58	13	5	1	..	77	185	27	3	73	45	167	47	194	05	63
Sept., "	59	19	4	1	..	83	54	7	1	49	..	49	40	14	05	..
Oct., "	62	21	7	..	..	90	85	8	1	61	..	208	56	6	34	..
Nov., "	65	20	6	3	..	94	272	15	3	69	30	295	10	19	42	..
Dec., "	101	34	6	1	..	142	218	19	5	132	..	479	41	19	32	..
Jan., 1897	95	19	4	1	..	119	192	20	8	106	40	296	56	25	24	14
Feb., "	62	17	8	..	..	87	186	21	3	65	..	196	18	9	30	6
	964	269	62	15		1310	2712	232	30	1075	36	3557	39	397	50	94

Comparison of Fires, Covers Spread, Fire and Watch Duty Performed for seventeen years, each year commencing March 1, and ending the last day of February

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1,015	2,683	820	05	2,611	30
1892	1,242	2,722	1,061	00	5,554	30
1893	1,189	3,455	1,155	45	5,179	15
1894	1,276	2,730	967	40	5,686	
1895	1,296	2,462	997	45	4,964	45
1896	1,310	2,712	1,075	36	3,557	39

## MONTHLY STATEMENT

Of Insurance and Loss on Buildings, Contents, Rents, and Marine, for the year ending March 1, 1897.

Months.	Buildings.			Contents.		Losses not Insured.		Total.		Rents.		Marine.	
	Insurance.	Loss.		Insurance.	Loss.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.
March,	\$ 1,054,950.00	\$160,528.68		\$ 370,588.67	\$127,401.38	\$ 1,469.89	\$ 10,548.94	\$ 1,425,538.67	\$99,908.19	\$12,400.00	\$ 12,070.25	\$ 6,000.00	250.00
April,	1 015,933.50	15,703.71		121,300.00	32,478.67	1,355.00	3,335.67	1,137,233.50	52,873.05	21,900.00	2,295.63		
May,	773,156.00	26,798.81		274,425.00	65,794.65	16,948.00	16,691.39	1,047,581.00	126,132.85	3,000.00		230,115.00	12,517.07
June,	702,080.00	38,068.68		399,475.00	9,051.46	435.00	3,198.55	1,101,555.00	99,202.97	23,000.00	613.90		
July,	631,835.00	26,546.26		150,325.00	26,312.79	1,663.94	236.97	1,084,100.00	57,721.54	40,000.00	331.50		
Aug.,	864,840.00	13,592.69		219,750.00	59,025.47	707.59	236.97	1,084,590.00	73,022.72				
Sept.,	427,700.00	24,024.51		249,350.00	6,592.74	100.00	1,163.94	677,050.00	31,841.19			1,300.00	285.00
Oct.,	166,975.00	6,692.84		182,400.00	9,143.11	750.00	4,087.78	348,675.00	21,276.73				
Nov.,	691,450.00	17,650.31		264,450.00	28,754.66	1,047.05	1,474.73	955,900.00	48,935.75			2,000.00	600.00
Dec.,	911,750.00	134,039.77		640,325.00	61,877.63	2,675.00	3,556.95	1,552,075.00	202,179.35	5,400.00	335.00	800.00	540.00
Jan.,	723,100.00	23,708.45		249,285.00	100,212.85	3,654.51	3,736.20	1,072,385.00	137,312.01				
Feb.,	795,925.00	18,134.62		575,000.00	33,414.29	90.00	738.00	1,371,525.00	52,366.91				
	\$ 8,808,994.50	\$512,131.33		\$3,797,273.67	\$602,116.07	\$30,955.98	\$58,329.88	\$12,606,268.17	\$1,203,533.26	\$105,700.00	\$15,786.28	\$240,265.00	\$13,852.07

\*Some unsettled losses and estimated

Comparison of Insurance and Losses for Seventeen Years, each year commencing March 1st, and ending the last day of February.

Year.	Insurance.	Total Loss.	Loss not insured.
1880	\$6,009,756.00	\$1,056,468.00	
1881	3,801,564.11	551,058.82	\$ 56,197.83
1882	5,209,049.83	940,073.69	172,401.50
1883	6,972,141.20	1,100,381.81	123,100.00
1884	6,933,012.24	1,256,944.74	123,389.35
1885	6,371,291.77	1,167,835.28	148,422.58
1886	4,194,401.11	905,080.68	281,944.66
1887	7,450,032.21	734,737.21	150,187.90
1888	7,490,420.32	1,080,217.96	112,338.37
1889	13,014,984.37	5,078,142.18	814,056.39
1890	7,730,043.60	787,577.27	57,404.05
1891	10,109,612.58	1,582,932.14	128,278.03
1892	10,977,922.67	2,203,235.98	150,006.59
1893	16,024,654.12	3,353,121.69	400,136.09
1894	10,694,969.25	1,434,200.25	226,382.22
1895	10,615,072.81	1,294,274.32	117,358.42
1896	12,606,268.17	1,203,533.26	89,285.86



# CLASSIFICATION OF COVERS SPREAD.

40 Fires of 1 Cover each . . . . .	40	2 Fires of 32 Covers each . . . . .	64
28 " " 2 Covers " . . . . .	56	2 " " 34 " " . . . . .	68
24 " " 3 " " . . . . .	72	1 " " 37 " " . . . . .	37
13 " " 4 " " . . . . .	52	1 " " 39 " " . . . . .	39
18 " " 5 " " . . . . .	90	2 " " 40 " " . . . . .	80
18 " " 6 " " . . . . .	108	1 " " 41 " " . . . . .	41
5 " " 7 " " . . . . .	35	2 " " 43 " " . . . . .	86
11 " " 8 " " . . . . .	88	1 " " 47 " " . . . . .	47
1 " " 9 " " . . . . .	9	1 " " 49 " " . . . . .	49
3 " " 10 " " . . . . .	30	1 " " 51 " " . . . . .	51
5 " " 11 " " . . . . .	55	1 " " 53 " " . . . . .	53
3 " " 12 " " . . . . .	36	1 " " 54 " " . . . . .	54
4 " " 13 " " . . . . .	52	1 " " 59 " " . . . . .	59
2 " " 14 " " . . . . .	28	1 " " 62 " " . . . . .	62
5 " " 16 " " . . . . .	80	1 " " 68 " " . . . . .	68
1 " " 17 " " . . . . .	17	1 " " 70 " " . . . . .	70
1 " " 18 " " . . . . .	18	1 " " 79 " " . . . . .	79
2 " " 20 " " . . . . .	40	1 " " 100 " " . . . . .	100
2 " " 24 " " . . . . .	48	1 " " 106 " " . . . . .	106
2 " " 25 " " . . . . .	50	2 " " 110 " " . . . . .	220
1 " " 27 " " . . . . .	27	1 " " 128 " " . . . . .	128
4 " " 30 " " . . . . .	120		
Total Fires . . . . .	219	Total Covers . . . . .	2,712
219 Fires, 2,712 Covers. Average, $12\frac{37}{106}$			

## COVERS.

On hand last report . . . . .	595
Condemned and destroyed . . . . .	8
Turned over to Haverhill Fire Department . . . . .	10
	<hr/> 18
Total covers on hand March 1, 1897 . . . . .	577

## GRADE OF LOSSES.

Grade of Losses for the year 1896, commencing January 1st, and ending December 31st.

584	Fires with no loss.	Aggregate.	Average.
383	" " loss under \$100 . . . . .	\$13,711.46	\$ 38.80
221	" " " from \$100 to \$500 . . . . .	50,908.26	230.35
64	" " " " \$500 to \$1,000 . . . . .	43,171.32	674.74
102	" " " " \$1,000 to \$5,000 . . . . .	216,106.73	2,118.69
22	" " " " \$5,000 to \$10,000 . . . . .	148,718.05	6,759.91
2	" " " " \$10,000 to \$15,000 . . . . .	24,555.13	12,277.56
Over \$15,000 as follows:			
1	Fire Jan. 2, 566 Washington St., T. O. Callahan & Co. . . . .	15,063.00	\$30,994.97
1	" Feb. 3, Winter St., Dorchester, First Parish Ch. . . . .	32,990.11	
1	" " 8, 64 Pearl St., Mills, Knight & Co.' <i>et al.</i> . . . .	63,682.35	
1	" " 17, 55 South St., Trostel & Sons, <i>et al.</i> . . . .	74,847.00	
1	" " 17, South St., N. Y., N. H. & H. R. R. . . . .	18,443.13	
1	" " 18, 65 Kingston St., Fowle & Pearson, <i>et al.</i> . . . .	21,418.01	
1	" " 22, Abattoir's, Brighton, . . . . .	22,753.13	
1	" " 25, Deacon St., J. A. C. Ludeman, . . . . .	16,917.75	
1	" Mar. 1, 117 Pearl St., Lee & Co. . . . .	23,099.68	
1	" " 12, 217 Columbus Ave., Pope Mfg. Co. . . . .	204,384.15	
1	" Apr. 18, 15 Avon St., H. Crine, <i>et al.</i> . . . . .	17,724.85	
1	" May 15, 468 Chelsea, Standard Oil Co. . . . .	37,741.00	
1	" " 25, 151 Tremont St., A. O. Chartier, . . . . .	48,179.43	
1	" June 5, Bismark St., Haffenneffer & Co. . . . .	24,445.40	
1	" " 9, 352 Washington St., J. L. Hammett, <i>et al.</i> . . . .	47,121.00	
1	" Aug. 23, 213 State St., Thomas Woods & Co. . . . .	31,466.65	
1	" Sept. 15, 270 Beacon St., University Club, . . . . .	16,475.00	
1	" Dec. 1, Austin St., B. & M. R. R. . . . .	135,229.20	
1	" " 14, 43 Summer . . . . .	18,014.13	45,789.19
1397		\$1,367,165.92	
4	Marine loss (see tables)		13,652.07
2	Sprinkler (see tables)		2,625.88

The 813 fires where there was a loss, the average was \$1,681.63.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for sixteen years, commencing January 1, 1881.

Year.	Total Fires.	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average Loss of Total Fires with Loss.
1881	558	344	\$ 467,105.28	\$ 837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,879.62	6,103.15	9,756.84
1890	933	562	1,088,887.29	1,167.08	1,937.52
1891	1,012	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	715	846,395.12	708.70	1,183.76
1893	1,233	684	5,024,765.04	2,654.39	7,346.14
1894	1,233	714	1,726,627.56	1,400.35	2,418.24
1895	1,234	719	1,195,274.45	968.62	1,662.41
1896	1,397	813	1,367,165.92	978.64	1,681.63
Total	14,380	8,608	\$25,284,428.38	\$1,809.87	\$2,945.97



## CAUSES OF ALARMS AND FIRES.

Alarms false . . . . .	25
Alarms, needless . . . . .	150
Alcohol lamp . . . . .	1
Ashes, hot . . . . .	12
Ashes in wooden receptacles . . . . .	12
Attempt to thaw water pipes . . . . .	9
Assistance, called for . . . . .	1
Back draft . . . . .	2
Burning paper . . . . .	6
Boiling over of kettle of fat . . . . .	3
Boiling over of kettle of tar . . . . .	2
Bonfire . . . . .	8
Boys set by . . . . .	28
Brush fires . . . . .	8
Candles lighted . . . . .	29
Chimney fires . . . . .	15
Cigars lighted . . . . .	10
Cigarettes . . . . .	11
Coals from stove . . . . .	2
Defective chimneys . . . . .	28
" construction . . . . .	2
" grates . . . . .	1
" flues . . . . .	7
" ovens . . . . .	2
" stove-pipes . . . . .	2
Drying plastering . . . . .	1
Electric light wires . . . . .	28
" motors . . . . .	1
Explosion of alcohol . . . . .	1
" of hot water heater . . . . .	2
Firecrackers . . . . .	30
Fireworks . . . . .	2
Friction from machinery . . . . .	5
Fumigating . . . . .	2
Gas explosion . . . . .	5
Gas-jets lighted . . . . .	21
" and curtains . . . . .	19

Gas leakage . . . . .	13
" stoves . . . . .	11
Gasoline stoves . . . . .	4
" torch . . . . .	5
Grass fires . . . . .	13
Incendiary . . . . .	42
" supposed . . . . .	17
Hot iron . . . . .	1
" coals . . . . .	2
Kerosene-oil explosion of . . . . .	6
" lamps . . . . .	23
" " upset or breaking . . . . .	72
" " explosion of . . . . .	23
" " lanterns . . . . .	2
" stoves . . . . .	32
Lightning . . . . .	6
Lime slacking . . . . .	1
Matches and children . . . . .	43
" " rats . . . . .	25
Matches, careless use of . . . . .	100
Malt mills . . . . .	2
Naphta lamps . . . . .	1
Overheated boiler . . . . .	5
" chimney . . . . .	5
" furnace . . . . .	10
" journal . . . . .	1
" ovens . . . . .	2
" stoves . . . . .	32
" steam pipes . . . . .	9
" smelter . . . . .	1
" ranges . . . . .	3
Picker machine . . . . .	1
Parlor lamp . . . . .	1
Rekindling of fires . . . . .	2
Roofers furnace . . . . .	2
Rubbish fires . . . . .	13
Smoky chimneys . . . . .	11
" furnace . . . . .	2
" stoves . . . . .	2
" fire box . . . . .	1
Steam escaping . . . . .	5
Sparks from coffee roaster . . . . .	1
" " chimney . . . . .	8
" " forge . . . . .	11
" " roofers furnace . . . . .	1
" " furnace . . . . .	3
" " locomotive . . . . .	17
" " machinery . . . . .	1



Sparks from open fire place	.	.	-	.	.	.	1
" " oven	.	.	.	.	.	.	1
" " stoves	.	.	.	.	.	.	5
" " smokers pipes	.	.	.	.	.	.	28
" " broiler	.	.	.	.	.	.	3
" " tug boat	.	.	.	.	.	.	1
Spontaneous combustion	.	.	.	.	.	.	50
Sprinkler breaks	.	.	.	.	.	.	4
Unknown	.	.	.	.	.	.	117
Vapors from benzine	.	.	.	.	.	.	2
" " gasoline	.	.	.	.	.	.	3
" " naphtha	.	.	.	.	.	.	5
" " varnish	.	.	.	.	.	.	2
" " chemicals	.	.	.	.	.	.	1
<hr/>							
Total	.	.	.	.	.	.	1,310

Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for sixteen years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured for sixteen years.

## BUILDINGS.

Year	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	5.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	6.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	8.68	23,478.10	358,459.20	7.00
1884	3,227,819.93	189,168.83	5.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	7.22	24,240.96	246,042.71	9.85
1886	2,733,588.56	275,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	5.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85	5.07	12,302.39	240,236.24	5.12
1889	4,583,384.25	911,382.45	19.88	330,747.20	1,212,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
1893	3,047,857.57	1,289,054.22	16.02	115,994.73	1,405,048.95	8.26
1894	6,849,379.33	636,964.32	9.30	236,195.41	873,159.73	27.05
1895	6,657,272.17	433,404.36	6.51	44,048.45	477,452.81	9.22
1896	9,154,604.15	589,103.88	6.43	34,599.75	623,703.63	5.54
Tot.	\$76,292,722.37	\$6,500,696.76	8.52	\$1,206,587.28	\$7,707,284.04	15.65

## CONTENTS.

Year	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$31,813.20	\$336,605.78	9.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,409.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	8.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.81	715,197.05	20.01	76,243.41	791,440.46	9.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
1893	10,332,586.55	3,373,037.42	32.64	246,678.67	3,619,716.09	6.82
1894	3,893,242.42	669,857.10	17.25	183,610.73	853,467.83	21.51
1895	3,365,799.34	441,073.78	19.04	76,816.69	717,890.47	10.70
1896	4,060,722.82	674,830.31	16.61	68,631.98	743,462.29	9.23
Tot.	\$62,080,718.92	\$15,434,969.90	24.86	\$2,141,810.84	\$17,576,780.74	12.18

## TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co.'s	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance.
1881	\$3,905,227.61	\$420,404.61	16.76	\$467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,253.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.90	11.69	1,031,676.70	12.79
1889	11,736,463.15	4,061,018.38	34.60	4,819,448.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,511,674.51	14.47
1892	8,481,051.58	731,948.78	8.62	846,395.12	9.97
1893	18,380,444.12	4,662,091.64	25.36	5,024,765.04	27.32
1894	10,742,621.75	1,306,821.42	12.16	1,726,627.56	16.05
1895	10,023,071.51	1,074,478.14	10.72	1,195,943.28	11.92
1896	13,215,326.97	1,263,934.19	9.56	1,367,165.92	10.35
Tot.	\$138,373,441.29	\$21,935,666.66	15.85	\$25,284,064.78	18.21

Respectfully submitted,

EDWARD SPAULDING Secretary.

# STATISTICS OF ALARMS AND FIRES FOR SIX YEARS.

Year	Area Sq. Mile.	Popu- lation Census 1890 and 1885.	Number of Buildings in the City, &c.										Number of Alarms and Fires.									
			Brick, &c., Buildings last Report.	New Brick Build- ings Completed.	Brick Buildings Totally Destroyed.	Total Brick Build- ings.	Frame Buildings last Report.	Frame Buildings Completed (New).	Frame Buildings Totally Destroyed.	Total Frame Buildings.	Grand Total Brick and Frame Buildings.	Total Alarms.	Brick, Iron, &c.	Frame.	Outside.	Total Fires.	Confined to floor originated.	Confined to Build- ing originated.	Extended to Ad- joining Property.	Extended beyond Adjoining Prop'y.		
1891	37.04	448,477	22,700	329	1	22,700	43,800	1964	1	43,800	68,500	980	424	389	87	900	790	780	32	1		
1892	"	"	23,028	329	13	23,028	43,800	1964	3	46,763	68,791	1196	510	495	89	1094	955	966	38	3		
1893	"	"	23,267	252	12	23,267	46,763	1611	100	47,371	70,638	1233	500	403	204	1167	701	876	24	3		
1894	"	"	23,653	328	1	23,653	47,371	1717	100	48,988	72,641	1233	477	460	115	1082	777	897	37	3		
1895	"	"	23,980	328	1	23,980	48,988	1445	11	50,442	74,422	1234	471	457	96	1024	772	886	40	2		
1896	"	496,920	23,980	337	*25	24,292	50,442	1498	*97	51,873	76,165	1307	546	485	101	1132	831	986	34	11		

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Marine Fire Loss and Insurance.					Rents, Fire Loss and Ins.				
Total Loss thereon.	Total Insur- ance there- on	Total Insur- ance Loss thereon.	Loss Per Capita.	Per cent. of Fires confined to Build- ing.	No. of Fires to 1000	Total Insur- ance Loss thereon.	Total Insur- ance there- on.	Total Loss thereon.	Total Insur- ance there- on.
\$1,511,674.51	\$10,447,876.87	\$1,388,877.43	\$3.37	.86	2.00	\$1,388,877.43	\$ 1,208.12	\$ 5,325.31	\$ 56,100.00
846,395.12	8,481,051.58	731,948.78	1.89	.78	2.44	731,948.78	25,057.81	17,184.64	98,000.00
6,024,765.04	18,380,444.12	4,662,091.64	11.20	.75	2.60	4,662,091.64	50,559.32	127,793.41	317,591.00
1,726,627.56	10,742,621.75	1,306,821.42	3.85	.85	2.35	1,306,821.42	350.00	4,651.95	30,940.00
1,195,343.28	10,023,071.51	1,074,478.14	2.67	.86	2.35	1,074,478.14	56,742.82	1,363.18	68,350.00
1,357,165.92	13,215,326.97	1,263,934.19	2.75	.87	2.28	1,263,934.19	13,652.97	16,368.28	128,700.00

\* 19 brick and 40 frame buildings were demolished on account of the North End Marine Park, and 5 brick and 6 frame buildings were demolished on account of Subway, at junction of Tremont and Pleasant Streets and Shawmut Ave., all of which is included in these amounts, † Estimated.

## MEDICAL OFFICER'S REPORT.

SAMUEL ABBOTT, JR.,

BOSTON, March 1, 1897.

*Supt. Boston Protective Department.*

*Dear Sir:* The annual report of the Medical Officer for the year ending February 28, 1897, is respectfully submitted.

Number of applicants examined for appointment	.	.	.	19
Number of applicants examined for promotion	.	.	.	21
Number of visits made on sick or injured members	.	.	.	70
Number of attending physician's reports examined	.	.	.	33
Number of special reports made	.	.	.	6
Number of certificates for return to duty	.	.	.	35

The following table gives the number of examinations for each month.

Months.	Application.	Medical Examination.
March . . . . .	3	3
April . . . . .	9	3
May . . . . .	6	4
June . . . . .	2	1
July . . . . .	0	4
August . . . . .	0	3
September . . . . .	2	3
October . . . . .	2	2
November . . . . .	3	3
December . . . . .	3	2
January . . . . .	3	8
February . . . . .	7	3

Of the nineteen applications for appointments three were rejected for following reasons:

Valvular disease of the heart . . . . .	1
Light weight and poor physical condition . . . . .	1
Physical disability . . . . .	1

Of the twenty-one who applied for promotion with one exception they were accepted. The reason for the rejection was

Physical disability . . . . .	1
-------------------------------	---

The sick or injured members have been visited at least twice and in some cases more frequently.

The following table gives the character of the injuries sustained.

Fractured fibula . . . . .	1
Sprain of ankle . . . . .	1
Strain of knee . . . . .	3
Synovitis of knee . . . . .	2
Contusion of thigh . . . . .	1
Contusion of face . . . . .	1
Carbuncle . . . . .	1
Contusion of shoulder . . . . .	1

Incised wound of forehead . . . . .	1
Lacerated wound of chin . . . . .	1
Contusion of foot . . . . .	1
Lacerated wound of finger . . . . .	1
Punctured wound of foot . . . . .	1
Inflamed gland . . . . .	1
Poisoned wound of left wrist . . . . .	1

In many of the cases the character of the injury was such that it was not necessary to give up work.

The following is a tabulated report of the cause for sick leave:

La grippe . . . . .	1
Acute follicular tonsilites . . . . .	2
Furunculosis . . . . .	1
Typhoid fever . . . . .	1
Facial neuralgia . . . . .	1
Acute indigestion . . . . .	1
Muscular rheumatism . . . . .	1
Acute bronchitis . . . . .	1
Gastro intestinal catarrh . . . . .	1
Pharyngitis and laryngitis . . . . .	2
Penal calculus . . . . .	1
Simple febricular . . . . .	1

#### SPECIAL REPORTS.

Following instruction the case of one member was fully investigated and a report made concerning his having had fits, this having been denied at time of examination for membership.

Three special reports have been made in regard to the case of Thos. A. Dinan, his case was examined also by Dr. Wm. M. Conant and a joint report submitted.

Special reports were also submitted in regard to the case of Lieut. Schworm.

#### CONCLUSION.

The requiring of a certificate from the Medical Officer before allowing a member to return to duty after sickness or injury has been found to be of advantage; in one case where the attending physician was of the opinion that it would be possible for the member to return to work, an examination disclosed the fact that the bronchitis, because of which he had received sick leave, was still present; in another case the pulse was found to be irregular, indicating physical disability although the attending physician had given a certificate of health.

The year has been one in which very little of serious injury has been sustained by any member of the department, with the exception of the case already referred to where the knee was injured. Again it gives me pleasure to testify to the general courteous manner in which the officers and members of the department have aided your medical officer in the performance of his duties.

Respectfully,

WM. F. TEMPLE, M. D.,  
*Medical Officer Boston Protective Department.*



## EXHIBIT A.

Review of Districts where alarms were given, for sixteen years, from March 1st to March 1st, of each year.

YEARS.		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	Total	Per Cent
City Proper	-	288	285	347	362	349	360	412	404	440	487	504	681	626	595	652	663	7,515	52.39
Roxbury	-	49	53	63	70	65	82	87	79	74	70	106	117	120	161	178	174	1,548	10.79
South Boston	-	29	29	50	51	42	56	73	79	84	87	98	117	58	114	122	114	1,203	88.39
Charlestown	-	35	41	46	42	48	41	62	57	63	94	104	121	107	118	93	105	1,177	88.20
East Boston	-	45	50	51	44	47	51	67	51	61	51	57	63	75	76	73	66	928	66.47
Dorchester	-	25	27	38	47	39	26	30	31	31	31	54	60	60	118	81	84	812	81.2
West Roxbury	-	33	17	33	12	45	24	38	34	44	41	63	55	22	68	65	62	656	65.66
Brighton	-	13	5	18	16	32	21	27	23	18	28	24	28	121	26	28	41	469	64.58
Cambridge	-	2	1	1	2	1	1	1	1	1	1	1	1	1	1	3	9	8	03.27
Chelsea	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	00.25
Brookline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Everett	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Harbor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Milton	-	1	-	-	-	1	1	-	1	1	1	1	-	-	-	1	-	6	-
Newton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
Somerville	-	-	-	-	1	-	1	-	-	1	1	2	-	-	-	-	-	5	-
Watertown	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-
Total Alarms	-	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	14,345	100

## EXHIBIT B.

Review of causes of alarms and fires, for sixteen years, from March 1st to March 1st, of each year.

CAUSES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	Total	Per Ct.
Ashes, in wooden receptacles, hot	7	9	14	5	9	8	13	21	4	14	11	16	21	11	23	24	210	01.46
Buildings, defective	23	26	21	24	21	23	24	30	24	25	24	33	32	33	41	39	443	03.09
Causes not otherwise enumerated	102	81	117	96	129	98	136	122	151	233	308	235	255	263	249	210	2635	19.76
Combustion, spontaneous	17	34	30	18	13	23	29	32	21	11	34	56	32	37	38	50	498	03.47
Electricity	0	0	4	3	3	7	8	8	6	15	10	27	35	35	25	29	215	01.50
Fireworks	7	2	3	13	3	11	39	45	5	12	19	16	26	30	36	32	302	02.11
Gas	28	18	21	20	25	21	23	34	30	37	54	53	53	77	66	69	629	04.38
Incendiary (supposed)	48	35	64	57	46	63	44	37	48	22	40	51	32	59	41	59	746	05.20
Kerosene oil	36	39	46	65	85	69	75	87	120	90	109	138	172	134	125	167	1567	10.85
Matches	65	60	94	78	65	102	147	110	110	94	135	150	166	175	179	168	1898	13.23
Needles	53	57	66	72	47	59	59	79	94	46	36	75	74	101	155	175	1248	08.70
Overheating	26	27	26	42	40	39	39	45	40	61	63	58	60	69	81	68	784	05.47
Sparks	31	27	33	36	34	29	39	40	35	41	44	93	61	78	98	81	800	05.58
Unknown	65	78	85	94	123	90	107	111	121	138	116	145	140	129	88	117	1797	12.53
Vapors igniting	7	12	11	4	14	13	5	10	10	6	7	11	15	15	24	23	185	01.29
Water Pipes, attempting to thaw	6	5	13	21	9	7	11	8	1	4	5	35	15	21	28	9	198	01.38
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	14,345	100.



## EXHIBIT C.

Review of hours in day when alarms were received, for sixteen years, from March 1st to March 1st, of each year.

		Years.																Total	Per Ct.
		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	Total	Per Ct.
Day Service.	6 to 7 A.M.	7	10	11	10	11	17	17	16	10	12	16	22	33	28	27	18	265	19.33
	7 " 8 " "	13	10	12	21	19	14	25	18	17	33	25	25	27	28	42	46	375	
	8 " 9 " "	14	18	20	22	31	22	21	23	37	34	26	32	41	31	44	44	460	
	9 " 10 " "	23	14	25	23	15	27	25	38	22	30	36	44	49	48	47	42	508	
	10 " 11 " "	15	24	24	26	34	23	32	26	26	43	36	51	66	48	66	54	594	
	11 " 12 noon	23	17	24	28	32	19	26	36	29	37	39	46	42	66	57	50	571	
	12 " 1 P.M.	27	24	29	22	29	27	30	33	27	36	36	40	62	61	73	50	606	
	1 " 2 " "	13	22	23	33	28	23	32	20	29	34	48	63	35	63	61	58	585	
	2 " 3 " "	18	18	38	27	29	21	35	36	28	38	51	48	42	57	59	69	614	
	3 " 4 " "	24	16	39	28	28	13	39	41	31	40	46	70	53	66	64	64	662	
	4 " 5 " "	23	22	31	34	28	8	45	45	42	56	50	87	67	62	81	55	736	
	5 " 6 " "	48	25	40	42	45	20	44	53	59	53	74	74	71	60	63	76	847	
Night Service.	6 " 7 " "	43	39	46	37	44	49	35	55	55	58	64	90	80	80	83	95	953	28.23
	7 " 8 " "	30	39	49	50	54	55	63	60	62	57	91	95	80	95	93	105	1078	
	8 " 9 " "	39	35	45	45	42	42	58	58	67	91	82	88	100	96	78	78	1044	
	9 " 10 " "	32	24	36	49	40	31	56	57	54	62	58	65	71	80	79	90	884	
	10 " 11 " "	38	28	28	40	29	37	39	37	57	48	50	66	58	67	54	76	752	
	11 " 12 Md'n	17	23	31	17	23	26	45	35	42	37	29	50	42	53	52	60	582	
	12 " 1 A.M.	24	19	20	20	20	33	33	26	34	25	36	46	45	38	38	32	489	
	1 " 2 " "	15	23	23	15	27	30	24	32	29	30	25	45	26	35	30	46	455	
	2 " 3 " "	8	20	21	16	24	26	22	20	21	19	34	24	26	31	23	32	367	
	3 " 4 " "	7	17	13	16	12	35	18	29	18	22	23	27	35	30	29	29	360	
	4 " 5 " "	13	14	10	17	10	28	20	13	14	10	21	30	20	29	25	19	293	
	5 " 6 " "	7	9	10	10	15	36	14	12	10	17	19	14	18	24	28	22	265	
Totals		521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	14,345	100

## EXHIBIT D.

Review of days of the week when alarms were received, for sixteen years, from March 1st to March 1st, of each year.

Days.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	Total	Per Ct.
Monday	83	65	88	93	85	109	139	113	98	111	130	180	143	179	191	188	1995	13.91
Tuesday	73	74	107	89	84	98	98	109	131	150	165	179	201	166	163	180	2067	14.41
Wednesday	76	87	101	98	102	95	113	130	118	122	155	187	199	227	186	188	2184	15.23
Thursday	65	52	84	90	98	87	131	115	115	147	136	202	171	198	192	147	2030	14.15
Friday	84	74	98	100	109	79	111	123	138	162	139	157	157	180	181	223	2115	14.74
Saturday	65	81	88	93	112	103	122	133	120	137	169	189	155	171	223	221	2182	15.21
Sunday	75	77	82	85	79	91	84	96	100	93	121	148	163	155	160	163	1772	12.35
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	14,345	100.

## EXHIBIT E.

Review of grade of losses for sixteen years, commencing January 1st and ending December 31st, of each year.

Years	Total Al'm	No Loss	Under \$100	\$100 to \$500	\$500 to \$1000	\$1000 to \$5000	\$5000 to \$10,000	\$10,000 to \$15,000	Over \$15,000	Total Fires with Loss	Average loss to Total fires with loss.
1881	558	214	156	84	32	47	11	7	7	344	\$1,357.86
1882	502	173	124	87	32	54	13	5	14	329	2,914.39
1883	641	270	124	109	30	64	14	14	16	371	3,053.86
1884	633	235	169	93	46	57	14	3	16	398	2,766.96
1885	655	258	167	98	41	62	11	4	14	397	3,103.91
1886	687	239	217	125	39	43	12	3	9	448	2,431.24
1887	754	294	197	115	51	65	16	6	10	460	1,500.98
1888	834	280	262	140	45	72	12	3	20	554	1,862.23
1889	788	294	220	137	46	54	20	5	12	494	9,756.84
1890	933	371	283	140	39	68	15	3	14	562	1,937.52
1891	1012	406	307	130	45	83	16	9	16	606	2,494.51
1892	1196	481	350	185	64	83	14	9	10	715	1,183.76
1893	1233	549	342	161	50	86	22	5	18	684	7,346.14
1894	1233	519	331	202	60	83	16	8	14	714	2,418.24
1895	1234	515	365	180	55	84	15	4	16	719	1,662.41
1896	1397	584	383	221	64	102	22	2	19	813	1,681.63
Totals	14,290	5682	3997	2207	739	1107	243	90	225	8608	\$2,937.27
Per Ct.	100.	39.76	27.97	15.44	05.17	07.75	01.70	00.63	01.58	60.24	







4353.52

TWENTY-FOURTH  
ANNUAL REPORT

OF THE

Boston Protective Department,

From March 1, 1897, to March 1, 1898.





COMPLIMENTS OF

SAMUEL ABBOTT, JR.,

SUPERINTENDENT.

NO. 40 PURCHASE STREET,  
BOSTON, MASS.



TWENTY-FOURTH  
ANNUAL REPORT

OF THE

**Boston Protective Department,**

From March 1, 1897, to March 1, 1898.



## OFFICERS.

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*President :*

FRED'K B. CARPENTER.

*Vice-President :*

E. E. PATRIDGE.

*Secretary-Treasurer :*

EDWARD SPAULDING.

*Directors :*

TO SERVE UNTIL MARCH, 1898.

ROBERT A. BOIT.

ARTHUR W. POPE.

FRED'K B. CARPENTER.

TO SERVE UNTIL MARCH, 1899.

A. L. BARBOUR.

GEO. A. EASTMAN.

W. H. ELLISON.

TO SERVE UNTIL MARCH, 1900.

T. L. O'BRIEN.

E. E. PATRIDGE.

C. H. PORTER.



BOSTON, March 9th, 1898.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT:—

The Directors submit herewith the 24th Annual Report of the Department, with the reports of the Superintendent, Secretary, Treasurer and Medical Officer, and the usual statistical tables.

The Board recommend, first, that the active duties of the Department be continued for another year; second, that the Directors be authorized to expend for the maintenance of the Department a sum not exceeding Seventy Thousand Dollars; and, third, that the Directors be authorized to spend an additional sum of Three Thousand Dollars in equipping a new House to be known as No. 3.

In explanation, the Directors desire to state, that owing to the discontinuance in many locations of bell alarms, it has become, in their judgment, necessary to establish a new Company not only to cover the localities formerly covered by call men, but to increase the efficiency of the Department in the more thickly and growing sections of the City, where great values are being centralized.

The Directors in making this recommendation feel that they can assure the members that there will be no increase in the regular assessment.

For the Directors,

FREDERICK B. CARPENTER,

*President.*



# TREASURER'S RECEIPTS AND EXPENDITURES OF THE BOSTON

1898.			
March.	By Cash on hand, Balance . . . . .	\$ 8,593.84	
	Balance of Assessment January 1, 1897 . . . . .	20,692.89	
	Six Months' Assessment July 1, 1897 . . . . .	35,310.72	
	Collected of Assessment January 1,* 1898 . . . . .	8,473.58	
	Interest Eliot National Bank . . . . .	294.86	
	Cash received for Watch Duty . . . . .	1,340.94	
	Cash received for Lost Tools . . . . .	1.72	
	Cash received for Automatic Credit . . . . .	114.59	
	Cash received for Div. American Casualty Co. . . . .	18.86	
	Cash received for Old Material . . . . .	9.00	
			\$74,851.00
	*Balance uncollected . . . . .	\$24,113.57	

## NET RUNNING EXPENSES.

March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	28,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	51,681.42
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08
March, 1893, to March, 1894 . . . . .	58,655.41
March, 1894, to March, 1895 . . . . .	56,125.42
March, 1895, to March, 1896 . . . . .	61,423.48
March, 1896, to March, 1897 . . . . .	60,171.80
March, 1897, to March, 1898 . . . . .	60,767.10

## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1898.

To Cash paid:—

Pay-roll, Permanent force, Company No. 1 . . .	\$17,884.31	
Auxiliary     "     "     " . . .	4,203.29	
Call     "     "     " . . .	565.71	
Permanent     "     "     No. 2 . . .	15,868.43	
Auxiliary     "     "     " . . .	4,110.31	
Call     "     "     " . . .	990.44	
Secretary, Treasurer and Office . . .	2,595.77	
Medical Officer and Bills . . .	510.00	
Rent and Taxes of Houses . . .	5,577.00	
Hay and Grain . . .	907.29	
Wagon and Harness Repairs . . .	672.03	
Horse shoeing . . .	539.87	
Fuel . . .	637.88	
Gas . . .	464.40	
Washing . . .	399.74	
Supplies . . .	461.77	
New England Telephone and Telegraph Co. . .	774.03	
Automatic Fire Alarm and Electric Apparatus . . .	131.94	
Water Tax . . .	91.60	
Repairs and Furnishing of Houses . . .	508.50	
Veterinary Services . . .	199.07	
Sundries . . .	229.28	
Directors' Meetings . . .	103.00	
Printing and Stationery . . .	1,997.75	
Advertising Annual Meeting . . .	53.75	
Auditors' Fees . . .	60.00	
Surety Bond . . .	75.00	
Employers' Liability . . .	444.80	
Horses purchased . . .	530.00	
New Extinguishers . . .	132.00	
New Badge Dies and Badges . . .	257.25	
Charles H. Cushing's funeral (member) . . .	30.00	
		\$62,006.21
Paid for watch duty . . .	518.17	
Assessments remitted . . .	26.55	
		\$62,550.93
Balance, Cash on Hand . . .		12,300.07
		<u>\$74,851.00</u>

E. &amp; O. E.

EDWARD SPAULDING, *Treasurer.*

BOSTON, March, 9, 1898.

Audited and found correct to date.

EDWARD D. BLAKE, } *Auditing Committee.*  
 JOHN H. EDDY, }

## SUPERINTENDENT'S REPORT.

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HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT. NO. 40 PURCHASE ST. }

BOSTON, March 1st, 1898.

TO THE PRESIDENT AND BOARD OF DIRECTORS:

*Gentlemen:* In compliance with Article IV. of By-Laws of the corporation of the Boston Protective Department, authorized by an Act entitled "An Act to incorporate the Boston Protective Department," passed March 9, 1874, amended February 4, 1879, I herewith submit the Twenty-fourth Annual Report of operations of the Department for the year 1897, ending March 1, 1898.

The several tables of statistics heretofore submitted, have been extended to include the period above mentioned. (See Secretary's Report and Exhibits.)

### ORGANIZATION.

The organization of the Department continues the same as last year.

#### BUILDINGS, ALARMS, FIRES, INSURANCE AND LOSS FOR 1897.

On January 1, 1897, there were 24,292 brick, stone, iron, etc., and 51,873 frame buildings in the City of Boston, making a total of 76,165 buildings; during the year there were 364\* brick, stone, iron, etc., and 2,002\* frame buildings completed. 24 frame buildings were totally destroyed by fire, †68 brick and †97 frame buildings were demolished on account of the Southern Union Depot, making the total number of buildings at the end of the year 24,588 brick, stone, iron, etc., and 53,754 frame: grand total, 78,342 buildings.

The total alarms during the year 1897 (January 1st to December 31st inclusive) were 1,438 of which 1,281 were for fires; of these 613 occurred in brick, stone, iron, etc., buildings, 542 in frame buildings, and 126 outside; the number of fires to 1,000 population were 2.87.

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\*By courtesy of Inspection of Buildings Department City of Boston.

†See page 28.

Of these fires 983 were confined to the floor where they originated, 1,107 to the building where they originated, 39 extended to adjoining property, and 9 extended beyond adjoining property; the per cent. of fires confined to buildings where they originated was 86.00.

The total loss on buildings and contents was \$861,203.64; total insurance, \$12,234,947.33, and the total insurance loss was \$796,546.08; the above was divided as follows:—

Total loss on buildings . . . . .	\$302,606.37
Total insurance loss on buildings . . . . .	281,515.16
Total insurance on buildings . . . . .	8,637,104.31
Per cent of total loss not insured on buildings . . . . .	6.96
Total loss on contents . . . . .	558,597.27
Total insurance loss on contents . . . . .	515,030.92
Total insurance on contents . . . . .	3,597,843.02
Per cent of total loss, not insured, on contents . . . . .	7.79

The loss per capita was \$1.73, which does not include the Marine Fire and Rent losses.

The total Marine fire loss was \$1,161.48.

On ships, vessels and cargoes paid by insurance companies \$961.48.

The total insurance thereon was \$10,000.00.

The total Rent loss was \$7,161.53, and the total insurance thereon was \$117,000.00.

The per cent of grade of alarms and losses for 1897 were as follows:—

33.31	had no loss.
37.84	the loss was under \$100.
15.96	“ “ “ from \$100 to \$500.
4.18	“ “ “ “ \$500 to \$1,000.
6.13	“ “ “ “ \$1,000 to \$5,000.
1.18	“ “ “ “ \$5,000 to \$10,000.
.70	“ “ “ “ \$10,000 to \$15,000.
.70	“ “ “ “ over \$15,000.
<hr/> 100	

The per cent of causes of alarms and fires for 1897 were as follows:—

1.24	was ashes in wooden receptacles hot.
2.49	“ defective buildings.
15.06	“ carelessness not otherwise enumerated.
3.14	“ electricity.
2.23	“ fireworks.
8.71	“ gas.
2.75	“ supposed incendiary.
12.64	“ kerosene-oil.
16.44	“ matches.

9.76	was needless.
6.02	" overheating.
5.44	" sparks.
2.36	" spontaneous combustion.
2.10	" vapors igniting.
8.38	" unknown.
1.24	" water pipes attempting to thaw.
<u>100</u>	

A comparison of the above causes of alarms and fires with the year 1896, shows that those caused by matches, kerosene oil, unknown and gas, increased considerable, and fireworks and thawing water pipes increased slightly. Those where the cause was overheating, vapors, spontaneous combustion, incendiary and needless were diminished considerably. while carelessness, electricity, hot ashes and defective construction of buildings were diminished slightly.

The operations of the department for the year ending March 1st, 1898, are as follows:—

		Co. No. 1.	Co. No. 2.
Alarms.	{ Bell . . . . .	393	754
	{ Still . . . . .	55	101
	{ Automatic . . . . .	46	21
Responded to by	{ Wagon . . . . .	398	510
	{ Callmen . . . . .	151	501
Total alarms		494	876
Hours Duty	{ At fires . . . . .	400.47	461.48
	{ After fires protecting goods . . . . .	212.59	94.30
	{ Watch . . . . .	2,246.28	2,801.10
	{ Total . . . . .	2,860.14	3,357.28
Covers Used	{ On goods . . . . .	1,504	1,047
	{ " protecting from storms . . . . .	66	6
	{ On roofs . . . . .	113	130
	{ Total . . . . .	1,683	1,183
Extinguishers used		5	18

*Second Section (in section) Called in Service.*

First Alarm	{ When 1st out section was at a fire	7	18
	{ When all other sections were at a fire	0	3
	{ When covering a company district	0	1
Second Alarms	{ 2d alarms . . . . .	14	7
Telephone calls		8	9
Messenger calls		3	0
Covering	{ When both sections of a company were at a fire . . . . .	11	4

Auxiliary Force retained on day duty after a fire	11	7
“ “ “ “ “ extra hazardous days . . . . .	2	1
Auxiliary force reporting at a fire during daytime	0	0
Protecting roofs . . . . .	1	0
Total . . . . .	<u>57</u>	<u>50</u>

The total number of alarms and fires was 1,527, it being 217 more than last year.

There were 1,097 $\frac{33}{100}$  hours' fire service, 5,047 $\frac{33}{100}$  hours' watch duty, and 307 $\frac{29}{100}$  hours' service, protecting buildings and contents from storms equivalent to 645 days of 10 hours each, 2 hours and 10 minutes, it being 142 days, 3 hours and 5 minutes more, in comparison with the previous year. There were 2,551 covers used in covering goods at fires, 72 on goods and 243 on roofs, protecting the buildings and contents after fires from additional damage by storms; which makes a total of 2,866 covers used; representing 619,056 square feet, it being 37,152 square feet less than was spread last year.

The following is a review of alarms and fires in Districts, Hours of Day, Days of Week, and causes of same, insurance and loss for seventeen years from 1881 to 1898 inclusive; commencing March 1, and ending the last day of February of each year.

DISTRICTS.					(Exhibit A)			
City Proper . . . . .					8,303	or	52.31	per cent.
Roxbury . . . . .					1,757	“	11.07	“ “
South Boston . . . . .					1,332	“	8.39	“ “
Charlestown . . . . .					1,286	“	8.10	“ “
East Boston . . . . .					996	“	6.28	“ “
Dorchester . . . . .					911	“	5.74	“ “
West Roxbury . . . . .					731	“	4.61	“ “
Brighton . . . . .					515	“	3.24	“ “
Assistance rendered . . . . .					41	“	.26	“ “
					<u>15,872</u>		<u>100</u>	



## HOURS IN DAY WHEN ALARMS WERE RECEIVED. (Exhibit C)

Day-Time.	6 to 7 A. M.	292	3,074	19.37 per cent.
	7 to 8 "	404		
	8 to 9 "	513		
	9 to 10 "	559		
	10 to 11 "	661		
	11 to 12 NOON	645		
	12 to 1 P. M.	669		
Night-Time.	1 to 2 "	651	4,473	28.18 per cent.
	2 to 3 "	686		
	3 to 4 "	728		
	4 to 5 "	802		
	5 to 6 "	937		
	6 to 7 "	1064	5,880	37.05 per cent.
	7 to 8 "	1192		
	8 to 9 "	1154		
	9 to 10 "	980		
	10 to 11 "	823		
	11 to 12 MIDNIGHT	667	2,445	15.40 per cent.
	12 to 1 A. M.	529		
	1 to 2 "	502		
	2 to 3 "	401		
	3 to 4 "	397		
	4 to 5 "	322		
	5 to 6 "	294		
Total		15,872	100	

65 per cent. of alarms and fires have occurred between the hours of 12 o'clock noon and 12 o'clock midnight.

## DAYS OF WEEK.

## (Exhibit D)

Mondays	2,248	14.16 per cent.
Tuesdays	2,290	14.43 "
Wednesdays	2,412	15.20 "
Thursdays	2,234	14.07 "
Fridays	2,318	14.60 "
Saturdays	2,396	15.10 "
Sundays	1,974	12.44 "
Total,	15,872	100

## CAUSES OF ALARMS AND FIRES.

## (Exhibit B)

Ashes in wooden receptacles, hot	229	1.44 per cent.
Buildings, defective	481	3.03 "
Causes not otherwise enumerated	3,065	19.31 "
Combustion, spontaneous	534	3.36 "
Electricity	263	1.66 "
Fireworks	336	2.12 "
Gas	762	4.80 "
Incendiary, supposed	788	4.96 "
Kerosene oil	1,750	11.03 "
Matches	2,149	13.54 "
Needless	1,397	8.80 "



Overheating . . . . .	876	5.52 per cent.
Sparks . . . . .	883	5.56 " "
Unknown . . . . .	1,925	12.13 " "
Vapors, igniting . . . . .	217	1.37 " "
Water pipes, attempting to thaw out . . . . .	217	1.37 " "
Total . . . . .	15,872	100. " "

INSURANCE AND LOSS FOR SEVENTEEN YEARS FROM MARCH 1ST TO  
MARCH 1ST OF EACH YEAR. (Page 20.)

Total insurance on buildings and contents . . . . .	\$151,541,947.67
" loss " " " " " . . . . .	26,354,405.62
Loss not insured " " " " " . . . . .	3,266,664.38
Per cent of total loss not insured on buildings and contents . . . . .	12.39

The following is a review of grade of losses for seventeen years, each year commencing January 1 and ending December 31.

(Exhibit E)

No loss . . . . .	6,160	39.17 per cent.
Under \$100 . . . . .	4,540	28.87 " "
\$100 to 500 . . . . .	2,436	15.49 " "
\$500 to 1,000 . . . . .	799	5.08 " "
\$1,000 to 5,000 . . . . .	1,195	7.60 " "
\$5,000 to 10,000 . . . . .	260	1.65 " "
\$10,000 to 15,000 . . . . .	100	.64 " "
Over \$15,000 . . . . .	235	1.50 " "
Total . . . . .	15,725	100. " "

60.83 per cent. of all alarms were for fires with a loss; the average loss for each fire was \$2,845.43.

INSURANCE AND LOSS FOR SEVENTEEN YEARS FROM JANUARY 1ST TO  
JANUARY 1ST OF EACH YEAR. (Page 27.)

Insurance on buildings . . . . .	\$84,929,826.68
Total insurance loss on buildings . . . . .	6,782,211.92
Loss on buildings not insured . . . . .	1,227,678.49
Percentage of loss not insured . . . . .	15.33
Insurance on contents . . . . .	65,678,561.94
Total insurance loss on contents . . . . .	15,950,000.82
Loss on contents not insured . . . . .	2,185,377.19
Per cent. of loss " " . . . . .	12.05
Total insurance on buildings and contents . . . . .	150,608,388.62
" " loss on buildings and contents . . . . .	22,732,212.74
" loss on buildings and contents . . . . .	26,145,268.42
Per cent. of total loss on buildings and contents, not insured . . . . .	17.36

## SPRINKLERS.

The following are operations of the department in buildings equipped with the sprinkler system, for the year ending March 1, 1898.

Date.	Street.	Duty Performed	Covers Spread.	Sprink'r Heads replaced	Loss.		Cause.
		H. M.			Building.	Contents.	
Apr. 29, 1897	279 Congress,	.18	0	0	None	None	Defective elbow on pipe leading to gauge.
" 28, "	295-7 "	1.47	8	3	None	\$945.00	Probably spontaneous combustion.
May 14, "	566 Washington,	.56	0	1	None	None	Workmen striking sprinkler head.
June 14, "	62-4 Batterymarch,	2.47	33	1	\$210.00	2,720.00	Fire operated sprinkler head.
" 21, "	212 Camden,	1.00	0	2	None	None	Fire operated sprinkler head.
July 3, "	520 Harrison Ave.,	.23	0	0	None	None	Excessive heat from boiler.
" 6, "	287-9 Congress,	.35	0	0	None	None	Accidental breaking of sprinkler head.
" 8, "	179 W. First,	1.25	13	2	362.23	152.60	Fire operated sprinkler head.
" 9, "	279 Congress,	2.51	18	0	None	None	Power Belt breaking sprinkler pipe.
Aug. 13, "	91 Franklin,	.53	0	1	None	None	Sprinkler head leaking.
Sept. 17, "	63-9 Kingston,	2.28	0	1	99 88	125.00	Fire operated sprinkler head.
Oct. 1, "	275-9 Congress,	1.16	16	0	None	None	Power Belt striking sprinkler head.
Jan. 31, 1898	89 Broad,	.45	5	1	None	None	Probably frost affecting sprinkler head.
Totals,		17.24	93	12	\$672.11	\$3,942.60	

The same friendly feeling between the Fire and this Department continues to exist.

In conclusion, I desire to express my sincere thanks to all departments or persons who have in any way assisted this Department during the past year.

Respectfully submitted,

SAMUEL ABBOTT, JR.

*Superintendent.*

# SCHEDULE OF PROPERTY.

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES NOS. ONE  
AND TWO AND IN THE OUTLYING DISTRICTS.

---

Horses	10
Wagons "complete"	4
Wagons "spare"	1
Wagon supply	1
Pungs "complete"	2
Wagons for Superintendent	2
Sleighs " "	2
Rubber covers "stock"	584
Rubber covers, roof	21
Canvas covers for roofs	4
Fire extinguishers	8
Life-saving blankets	4
Sets of patent double harnesses	4
Single harnesses	2
Wagon poles "extra"	2
Wheels "extra"	4
Whiffletrees "extra"	5
Bedsteads with bedding	49
Billiard table "complete"	1
Fire hats	47
Necessary tools and equipments.	
" stable equipments.	
" extra parts of harnesses.	
" house furniture and fixtures.	
" telegraph apparatus.	
" gas fixtures.	
" supplies.	
" stationery.	

For detailed statement, see Quarterly Report at Superintendent's Headquarters.

Duty performed by Company No. 1, from March 1, 1897, to March 1, 1898.

Alarms responded to.				Hours on duty.			Covers spread.				Second Section of Company calls.																				
Months.	Bell.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	Watching at Fires.		Totals.		Totals.				Extinguishers used.	1st Alarms. 2d Al's.						Totals.						
										H. M.	H. M.	H. M.	H. M.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.		When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.		Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous, days.	Protecting Roofs.
March, 1897	29	2	3	27	9	34		23.22	6.50	95.52	126.04	66	58	8					1				1					1		4	
April, "	33	5	4	34	14	42	2	47.48	49.41	537.45	635.14	356	310	32	14				1			1		2				4		8	
May, "	22	3	0	22	7	25		29.56	12.55	164.40	207.31	132	117	15								2		1				2		5	
June, "	39	8	2	40	22	49	1	30.13	16.27	17.40	64.20	70	67	3				1				1						1		5	
July, "	27	5	3	27	11	35	2	24.14	5.21	114.59	144.34	88	77	11														1		4	
Aug., "	25	9	1	26	8	35	1	23.04	17.50	144.36	185.30	124	88		36															4	
Sept., "	31	6	3	31	15	40		24.06	8.39	144.27	177.12	62	57	5								3								3	
Oct., "	40	2	5	40	12	47	1	32.40	15.41	77.49	126.10	140	127	13																2	
Nov., "	31	4	3	32	13	38		35.59	13.55	89.55	139.49	114	105	9																4	
Dec., "	38	3	6	35	18	47		32.29	13.10	66.15	111.54	128	120	8																2	
Jan., 1898	41	4	8	42	13	53	1	43.12	46.50	433.35	523.37	219	195	8	16		3					1		2				1		7	
Feb., "	37	4	8	42	9	49		53.44	5.40	358.55	418.19	184	183	1								2								6	
Totals	393	55	46	398	151	494	8	400.47	212.59	2246.28	2860.14	1683	1504	113	66		5	7				14		8	3	11		11	2	1	57

# Duty performed by Company No. 2, from March 1, 1897, to March 1, 1898.

Months.	Alarms responded to.							Hours on duty.				Covers spread.				Second section of Company calls.										Totals.						
	Bell.	Still.	Automatic.	Wagon responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	H. M.	H. M.	H. M.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.		Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during day time.	Auxiliary Force on duty extra hazardous days.	Protecting Roofs.	
March, 1897	64	9		50	36	73		44.29	5.	347.15	396.44	88	14	3	105	2	3		2	3												4
April, "	69	8	2	44	40	79		45.08	12.47	144.15	202.10	123	15		138	2	1		2	1			2		1		1		2			7
May, "	52	10	2	40	39	64	1	42.28	14.08	47.10	103.46	149	27		176	1	1		1	1			1		1							3
June, "	64	8		41	42	72	1	34.	5.	72.	111.00	88	9		97	6	3		6	3			1					2				6
July, "	65	18	2	44	57	85	2	28.11	4.	263.35	295.46	28	5		33					1					1					1		1
Aug., "	44	4	1	29	32	49		26.40	1.	64.30	92.10	45	2		47	2									1		1					3
Sept., "	60	6	2	37	40	68	1	23.41		73.10	96.51	10	3		13					2					1							1
Oct., "	70	7	2	49	47	79		35.28	1.	55.10	91.38	45	1		46									1								3
Nov., "	54	3	3	36	31	60		39.09	15.22	146.45	201.16	74	13	3	90				5	2			1		1							4
Dec., "	85	7	1	45	60	93		47.23	17.08	198.20	262.51	136	15		151					2				2								6
Jan., 1898	74	7	3	52	46	84		53.48	18.13	1348.20	1420.21	158	25		183					4	1				1							9
Feb., "	53	14	3	43	31	70		41.23	.52	40.40	82.55	103	1		104					1	2	1	2		1				2			50
Totals.	754	101	21	510	501	876	5	461.48	94.30	2801.10	3357.28	1047	130	6	1183	18	3	1	7					9		4			7	1		

OFFICE OF SECRETARY-TREASURER,  
40 PURCHASE STREET,  
BOSTON, MARCH 1, 1898.

TO THE PRESIDENT AND DIRECTORS:

*Gentlemen.*—The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1897, to Dec 31, inclusive, is as follows:

Insurance on buildings . . . . .	\$8,637,104.31
Loss ou buildings . . . . .	281,515.16
Insurance on contents . . . . .	3,597,843.02
Loss on coutents . . . . .	515,030.92
Insurance on marine risks . . . . .	10,000.00
Loss on marine risks . . . . .	961.48
Insurance on rents . . . . .	117,000.00
Loss on rents . . . . .	7,161.53

CAUSES OF FIRES AND ALARMS.

MARCH 1, 1897. TO FEB. 28, 1898, INCLUSIVE.

Buildings, defective . . . . .	37
Causes not otherwise enumerated . . . . .	374
Electricity . . . . .	48
Fireworks . . . . .	34
Gas . . . . .	133
Incendiary (supposed) . . . . .	42
Kerosene oil . . . . .	176
Matches . . . . .	251
Needless . . . . .	149
Sparks . . . . .	83
Spontaneous combustion . . . . .	36
Unknown . . . . .	128
Vapors . . . . .	32
	<hr/> 1,523
Marine . . . . .	4
	<hr/>
Total . . . . .	1,527



## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March, 1, 1898.

Months	Alarms.						Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by oct.	Sprinklers operated.	Total.	Covers.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra Covers used.
March, 1897	77	26	3	5	..	111	146	22	2	78	26	443	07	11	50	3
April, ..	83	29	6	9	..	127	433	47	3	126	28	682	..	62	28	14
May, ..	63	20	4	11	..	98	266	42	1	70	31	211	50	27	03	..
June, ..	80	31	3	13	..	127	155	12	7	79	38	89	40	21	27	..
July, ..	77	47	16	5	..	145	105	16	..	94	10	378	34	9	21	..
August, ..	56	24	3	6	..	89	133	2	..	53	15	209	06	18	50	36
Sept., ..	75	26	5	12	..	118	67	8	2	70	06	217	37	8	39	..
Oct., ..	90	28	7	12	..	137	172	14	..	82	44	132	59	16	41	..
Nov., ..	71	17	13	8	..	109	179	22	..	87	09	236	40	29	17	3
Dec., ..	106	41	9	14	1	171	256	23	5	125	51	264	35	30	18	..
Jan., 1898	95	29	11	16	..	151	353	33	3	134	15	1781	55	65	03	16
Feb., ..	73	43	14	14	..	144	286	2	..	94	30	399	35	6	32	..
	946	361	94	125	1	1527	2551	243	23	1097	03	5047	38	307	29	72

Comparison of Fires, Covers Spread, Fire and Watch Duty Performed for eighteen years, each year commencing March 1, and ending the last day of February

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1,015	2,683	820	05	2,611	30
1892	1,242	2,722	1,061	00	5,554	30
1893	1,189	3,455	1,155	45	5,179	15
1894	1,276	2,730	967	40	5,686	..
1895	1,296	2,462	997	45	4,964	45
1896	1,310	2,712	1,075	36	3,557	39
1897	1,527	2,551	1,097	03	5,047	38







# CLASSIFICATION OF COVERS SPREAD.

56 Fires of 1 Cover each . . . . .	56	5 Fires of 23 Covers each . . . . .	115
38 " " 2 Covers " . . . . .	76	4 " " 24 " " . . . . .	96
23 " " 3 " " . . . . .	69	2 " " 25 " " . . . . .	50
15 " " 4 " " . . . . .	60	3 " " 26 " " . . . . .	78
16 " " 5 " " . . . . .	80	2 " " 27 " " . . . . .	54
9 " " 6 " " . . . . .	54	1 " " 28 " " . . . . .	28
3 " " 7 " " . . . . .	21	1 " " 33 " " . . . . .	33
8 " " 8 " " . . . . .	64	1 " " 38 " " . . . . .	38
6 " " 9 " " . . . . .	54	1 " " 45 " " . . . . .	45
5 " " 10 " " . . . . .	50	1 " " 48 " " . . . . .	48
3 " " 11 " " . . . . .	33	2 " " 50 " " . . . . .	100
5 " " 12 " " . . . . .	60	3 " " 60 " " . . . . .	180
3 " " 13 " " . . . . .	39	1 " " 66 " " . . . . .	66
2 " " 14 " " . . . . .	28	1 " " 70 " " . . . . .	70
2 " " 15 " " . . . . .	30	1 " " 75 " " . . . . .	75
3 " " 16 " " . . . . .	48	1 " " 93 " " . . . . .	93
1 " " 17 " " . . . . .	17	1 " " 101 " " . . . . .	101
2 " " 18 " " . . . . .	36	1 " " 103 " " . . . . .	103
1 " " 19 " " . . . . .	19	2 " " 132 " " . . . . .	264
1 " " 20 " " . . . . .	20		
Total fires . . . . .	237	Total covers . . . . .	2551
237 Fires, 2551 Covers. Averages, $10\frac{77}{100}$ .			

## COVERS.

On hand last report . . . . .	577
Condemned and destroyed . . . . .	22
Total covers on hand March 1, 1898 . . . . .	555

## GRADE OF LOSSES.

Grade of Losses for the year 1897, commencing January 1st, and ending December 31st.

		Aggregate.	Average.
478	Fires with no loss.		
543	" " loss under \$100 . . . . .	\$18,739.19	\$ 34.51
229	" " " from \$100 to \$500 . . . . .	52,730.85	230.27
60	" " " \$500 to \$1,000 . . . . .	45,781.32	729.67
88	" " " \$1,000 to \$5,000 . . . . .	190,549.67	2,165.34
17	" " " \$5,000 to \$10,000 . . . . .	123,463.48	7,262.56
10	" " " \$10,000 to \$15,000 . . . . .	127,331.94	12,733.19
	Over \$15,000 as follows:		
1	Fire Jan. 2, 100 Condor St., Boston & Lockport Block Co.	19,662.00	\$304,607.19
1	" " 3, 498 E. First St., Frank L. Young & Kimball	31,814.21	
1	" " 21, 75 Commercial St., Charles E. Moody & Co	44,131.12	
1	" Feb. 10, 11 Cornhill. W. R. Schaefer & Son <i>et al</i> .	16,487.87	
1	" Apr. 18, 58 Summer St., Smith, Patterson & Co., <i>et al</i>	96,071.52	
1	" " 19, Crescent Ave., C. H. B. Breck . . . . .	23,000.00	
1	" " 27, 172 Tremont St., F. R. A. Pingree, <i>et al</i> .	19,619.89	
1	" May 31, 154 Tremont St., Henry Brown & Co., <i>et al</i>	15,061.58	30,460.71
1	" Aug. 17, 77 Franklin St., Pierce & Gardiner . . .	21,178.47	
1	" Nov. 4, 176 Portland St., Heyward Bros. & Wakefield Co.	17,580.53	
1435		\$861,203.64	
3	Marine losses (see tables)		961.48

The 957 fires where there was a loss, the average was \$899.86.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for seventeen years, commencing January 1, 1881.

Year.	Total Fires.	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average Loss of Total Fires with Loss.
1881	558	344	\$ 467,105.28	\$ 837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	443	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,879.62	6,103.15	9,756.84
1890	933	562	1,088,887.29	1,167.08	1,937.52
1891	1,012	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	715	846,395.12	708.70	1,183.76
1893	1,233	684	5,024,765.04	2,654.39	7,346.14
1894	1,233	714	1,726,627.56	1,400.35	2,418.24
1895	1,234	719	1,195,274.45	968.62	1,662.41
1896	1,397	813	1,367,165.92	978.64	1,681.63
1897	1,435	957	861,203.64	600.15	899.86
Total	15,815	9,565	\$26,145,632.02	\$1,653.21	\$2,733.47

## CAUSES OF ALARMS AND FIRES.

(March 1897 to March 1898.)

Alarms false . . . . .	30
“ needless . . . . .	119
Alcohol lamps . . . . .	3
Ashes hot . . . . .	8
“ “ in wooden barrels . . . . .	11
Attempt to thaw water pipes . . . . .	19
Assistance called for . . . . .	3
Burning paper . . . . .	2
Boiling over of kettle of fat . . . . .	3
“ “ “ “ “ tar . . . . .	14
“ “ “ “ “ wax . . . . .	1
Bonfires . . . . .	8
Boy set by . . . . .	36
Brush fires . . . . .	5
Candles lighted . . . . .	22
Chimney fires . . . . .	19
Cigars lighted . . . . .	13
Coals from stove . . . . .	1
Chemicals . . . . .	1
Cigarettes . . . . .	8
Defective chimneys . . . . .	13
“ construction . . . . .	4
“ furnaces . . . . .	1
“ flues . . . . .	19
“ stoves . . . . .	1
Drying plastering . . . . .	1
Electric light wires . . . . .	40
“ motors . . . . .	8
Explosion of steam tanks . . . . .	1
“ “ “ boilers . . . . .	1
Fire crackers . . . . .	27
Fire works . . . . .	7
Friction from machinery . . . . .	1
Fumigating . . . . .	2
Gas explosions . . . . .	3
Gas-jets lighted . . . . .	34
“ and curtains . . . . .	73

Gas leaks . . . . .	5
" stoves . . . . .	16
" meters . . . . .	2
Gasoline stoves . . . . .	10
" torches . . . . .	3
" lamps . . . . .	2
Grass fires . . . . .	8
Incendiary . . . . .	33
" supposed . . . . .	9
Hot coals . . . . .	2
" iron . . . . .	1
Kerosene-oil . . . . .	6
" lamps . . . . .	27
" " upset or breaking . . . . .	60
" lamp explosions . . . . .	49
" stoves . . . . .	34
Lime slacking . . . . .	5
Lightning . . . . .	3
Matches careless use of . . . . .	164
" and children . . . . .	60
" " rats . . . . .	27
Naphtha lamps (painters) . . . . .	1
" stoves . . . . .	1
Overheated boilers . . . . .	8
" chimneys . . . . .	2
" flues . . . . .	1
" furnaces . . . . .	12
" furnace pipes . . . . .	1
" ovens . . . . .	3
" stoves . . . . .	50
" steam pipes . . . . .	9
" smoke pipes . . . . .	5
" retort . . . . .	1
Plumbers' furnaces . . . . .	5
Rekindling of fires . . . . .	1
Roofers' furnaces . . . . .	1
Rubbish fires . . . . .	7
Smoky chimneys . . . . .	22
" furnaces . . . . .	1
" stoves . . . . .	8
Soot burning . . . . .	4
Steam escaping . . . . .	5
Sparks from chimneys . . . . .	18
" " fire boxes . . . . .	2
" " flues . . . . .	4
" " forges . . . . .	4
" " furnaces . . . . .	5
" " horseless fire engine . . . . .	1
" " locomotives . . . . .	15





Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for seventeen years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured for seventeen years.

## BUILDINGS

Year	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	5.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	6.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	8.68	23,478.10	358,459.20	7.00
1884	3,227,819.93	189,168.83	5.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	7.22	24,240.96	246,042.71	9.85
1886	2,733,588.56	175,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	5.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85	5.07	12,302.39	240,236.24	5.12
1889	4,683,384.25	911,382.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
1893	8,047,857.57	1,289,054.22	16.02	115,994.73	1,405,048.95	8.26
1894	6,849,379.33	636,964.32	9.30	236,195.41	873,159.73	27.05
1895	6,657,272.17	433,404.36	6.51	44,048.45	477,452.81	9.22
1896	9,154,604.15	589,103.88	6.43	34,599.75	623,703.63	5.54
1897	8,637,104.31	281,515.16	3.26	21,091.21	302,606.37	6.96
Tot.	\$84,929,826.68	\$6,782,211.92	7.98	\$1,227,678.49	\$8,009,890.41	15.33

## CONTENTS.

Year	Insurance.	Loss Paid by Companies.	Percent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$31,813.20	\$336,605.78	9.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,409.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	8.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.81	715,197.05	20.01	76,243.41	791,440.46	9.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	6,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
1893	10,332,586.55	3,373,037.42	32.64	246,678.67	3,619,716.09	6.82
1894	3,893,242.42	669,857.10	17.25	183,610.73	853,467.83	21.51
1895	3,365,799.34	641,073.78	19.04	76,816.69	717,890.47	10.70
1896	4,060,722.82	674,830.31	16.61	68,631.98	743,462.29	9.23
1897	3,697,843.02	515,030.92	14.31	43,566.35	558,597.27	7.79
Tot.	\$65,678,661.94	\$15,950,000.82	24.28	\$2,185,377.19	\$18,135,378.01	12.05

## TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co.'s	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance
1881	\$3,905,227.61	\$420,404.61	16.76	\$467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,253.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.90	11.69	1,031,676.70	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,511,674.51	14.47
1892	8,481,051.58	731,948.78	8.62	846,395.12	9.97
1893	18,380,444.12	4,662,091.64	25.36	5,024,765.04	27.32
1894	10,742,621.75	1,306,821.42	12.16	1,726,627.56	16.05
1895	10,023,071.51	1,074,478.14	10.72	1,195,343.28	11.92
1896	13,215,326.97	1,263,934.19	9.56	1,367,165.92	10.35
1897	12,234,947.33	796,546.08	6.51	861,203.64	7.04
Tot.	\$150,608,388.62	\$22,732,212.74	15.09	\$26,145,268.42	17.36

Respectfully submitted,  
EDWARD SPAULDING Secretary.

# STATISTICS OF ALARMS AND FIRES FOR SEVEN YEARS.

Year	Area Sq. Mile.	Popu- lation Census 1895.	Number of Buildings in the City, &c.										Number of Alarms and Fires.									
			Brick, &c., Buildings last Report.	New Brick Build- ings Completed.	Brick Buildings Totally Destroyed.	Total Brick Build- ings.	Frame Buildings last Report.	Frame Buildings Completed (New).	Frame Buildings Totally Destroyed.	Total Frame Buildings.	Grand Total Brick and Frame	Total Alarms.	Brick, Iron, &c.	Frame.	Outside.	Total Fires.	Confined to floor originated.	Confined to Build- ing originated.	Extended to Ad- joining Property.	Extended beyond Adjoining Prop'y.		
1891	37.04	448,477	22,700	329	1	22,700	43,800	1964	1	43,800	66,500	980	424	389	87	900	730	780	32	1		
1892	"	"	22,028	252	13	23,267	45,763	1611	3	45,763	68,791	1196	510	495	89	1094	955	966	38	3		
1893	"	"	23,028	368	12	23,398	47,371	1717	100	48,988	70,638	1233	500	403	264	1167	761	876	24	3		
1894	"	"	23,267	338	1	23,595	48,988	1445	11	50,442	72,641	1233	477	460	115	1052	777	897	37	3		
1895	"	496,920	23,653	328	25	24,292	50,442	1498	67	51,873	74,422	1234	471	457	96	1024	772	886	40	2		
1896	"	"	24,292	334	*68	24,598	51,873	2002	*121	53,764	76,165	1337	546	485	101	1132	831	986	34	11		
1897	"	"	24,292	367		24,598	51,873	2002		53,764	78,342	1438	613	542	126	1281	933	1107	39	9		

Marine Fire Loss and Insurance.					Rents, Fire Loss and Ins.				
Total Loss thereon.	Total Insurance thereon.	Loss Per Capita.	Total Insurance thereon.	Total Loss thereon.	Total Loss thereon.	Total Insurance thereon.	Total Loss thereon.	Total Insurance thereon.	Total Loss thereon.
\$1,511,574.51	\$1,388,877.43	\$3.37	\$1,388,877.43	\$1,208.12	\$3,000.00	\$1,208.12	\$5,325.31	\$56,100.00	\$5,325.31
846,395.12	731,948.78	1.89	731,948.78	25,057.81	58,057.57	25,057.81	17,184.64	98,000.00	17,184.64
5,024,765.04	4,662,091.04	11.20	4,662,091.04	52,619.32	505,500.00	50,569.32	127,793.41	317,591.00	127,793.41
1,726,697.56	1,306,821.42	3.85	1,306,821.42	350.00	4,000.00	350.00	4,651.95	30,940.00	4,651.95
1,195,343.28	1,074,478.14	2.35	1,074,478.14	56,842.82	58,799.00	56,742.82	1,363.18	68,350.00	1,363.18
1,367,165.92	1,293,934.19	2.87	1,293,934.19	13,762.07	239,405.00	13,652.07	16,366.28	128,700.00	16,366.28
861,203.64	796,546.08	1.73	796,546.08	1,161.48	10,000.00	961.48	7,161.53	117,000.00	7,161.53

\* 68 brick and 97 frame buildings were demolished on account of the Southern Union Station. † Estimated.

## MEDICAL EXAMINER'S REPORT.

SAMUEL ABBOTT, JR.,

*Supt. Boston Protective Department.*

*Dear Sir:* The report of the Medical Office to the Department, for the year ending March 1, 1898, is herewith respectfully submitted.

Number of applications for appointment	.	.	.	.	45
Number of applications for promotion	.	.	.	.	26
Number of visits made to sick members	.	.	.	.	52
Number of visits made to injured members	.	.	.	.	50
Number of attending physician's reports examined	.	.	.	.	46
Number of special reports made	.	.	.	.	5
Number of accident cases attended	.	.	.	.	1
Number of certificates of health to return to duty	.	.	.	.	40

Month.	Exam.	Sick or Injured.		Special Report.	Rejections.
March	7	11	1	1	3
April	2	5	1	1	
May	12	2			1
June	4	1			1
July	4	2	1	1	
August		1			
September	4	1	3		1
October	5	2		2	
November	6		5		
December	11	1	3		5
January	8	2	2		2
February	8	3	3		

Of those who applied for promotion two were postponed. One on account of the condition of the lungs; the other on account of a possible beginning disease of the kidneys. The following table gives the causes for rejection of those who applied for membership.

Gonorrhœ	.	.	.	.	.	.	.	1
Disease of lungs	.	.	.	.	.	.	.	2
Chronic inflammation of middle ear	.	.	.	.	.	.	.	1
Heart disease	.	.	.	.	.	.	.	3
Disease of kidney	.	.	.	.	.	.	.	3
Defective vision	.	.	.	.	.	.	.	1

On investigation, the causes for sick leave were found to be as follows:

Acute bronchitis	.	.	.	.	.	.	.	1
Coryza	.	.	.	.	.	.	.	2
Influenza	.	.	.	.	.	.	.	1
Gonorrhœ and epididymilis	.	.	.	.	.	.	.	1

Acute indigestion . . . . .	4
Enteritis (toxic) . . . . .	1
Enteritis (simple) . . . . .	1
Muscular rheumatism . . . . .	1
Acute tonsillitis . . . . .	2
La grippe . . . . .	3
Typhoid fever . . . . .	1
Plurisy . . . . .	1
Malingerer . . . . .	1

The causes for absence on account of injury were as follows :

Punctured wound of hand . . . . .	2
Punctured wound of foot . . . . .	1
Lacerated wound of fingers . . . . .	1
Lacerated wound of forehead . . . . .	1
Incised wound of knee . . . . .	2
Contusion of knee . . . . .	2
Injury to tibia . . . . .	1
Fractured ankle (fibula) . . . . .	1
Sub acute synovitis . . . . .	1
Abscess . . . . .	1
Sprain of ankle . . . . .	1
Blister of foot . . . . .	1
Strain of shoulder . . . . .	1
Poisoned wound of hand . . . . .	1

In four instances when injured or sick members have applied to return to work their conditions have been such that it seemed best to postpone giving certificate of health.

#### SPECIAL REPORTS.

A special report was rendered in the case of Mr. D. McAllester concerning vision which was found to be good.

In the case of Mr. Bohm a report was made as to the condition of his knee and opinion given with recommendations.

The case of C. E. Bannon was fully investigated and a special report made.

The case of Thos. A. Dinen was twice the cause of special report.

Our Department has lost from its membership by death one who for years has been associated with us, and for myself would at this time acknowledge my indebtedness for the ever courteous way in which he treated your medical officer.

Many of the injuries have been such that the members have not been able to report for duty for several weeks, yet a fatality or permanent disability has not occurred in our Department.

My thanks are due to both officers and men for the kindly manner in which they have always treated the medical officer.

WM. F. TEMPLE, M. D.,

*Medical Officer, Boston Protective Department.*



## EXHIBIT A.

Review of Districts where alarms were given, for seventeen years, from March 1st to March 1st, of each year.

YEARS.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Total	Per Cent.
City Proper	288	285	347	362	349	360	412	464	440	487	504	681	626	595	652	663	788	8,303	52.31
Roxbury	-	49	53	70	65	82	87	79	74	70	106	117	120	161	178	174	209	1,757	11.07
South Boston	-	29	29	50	42	56	73	79	84	87	98	117	58	114	122	114	129	1,332	8.39
Charlestown	-	35	41	46	48	41	62	57	63	94	104	121	107	118	93	105	109	1,286	8.10
East Boston	-	45	50	44	47	51	67	51	61	51	57	63	75	76	73	66	68	996	6.28
Dorchester	-	25	27	38	39	26	30	31	31	61	54	60	60	118	81	84	99	911	5.74
West Roxbury	-	33	17	33	45	24	38	34	44	41	63	53	22	68	65	62	75	731	4.61
Brighton	-	13	5	16	32	21	27	23	18	28	24	28	121	26	41	28	46	515	3.24
Cambridge	-	2	1	2	1	1	1	1	1	1	1	1	1	1	3	1	1	9	8
Chelsea	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	3
Brookline	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	2
Everett	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Harbor	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Hyde Park	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Milton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Newton	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Somerville	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Watertown	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5
T total Alarms	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	15,872	100

## EXHIBIT B.

Review of causes of alarms and fires, for seventeen years, from March 1st to March 1st, of each year.

CAUSES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Total	Per Ct.
Ashes, in wooden receptacles, hot	7	9	14	5	9	8	13	21	4	14	11	16	21	11	23	24	19	229	1.44
Buildings, defective	23	26	21	24	21	23	23	30	24	25	24	33	32	33	41	30	38	481	3.03
Causes not otherwise enumerated	102	81	117	96	129	98	136	122	151	233	308	285	255	263	249	210	230	3045	19.31
Combustion, spontaneous	17	34	30	18	13	23	29	32	21	34	34	56	32	37	38	50	36	534	3.36
Electricity	0	0	4	3	3	7	8	8	6	15	10	27	35	35	25	29	48	203	1.66
Fireworks	7	2	3	13	6	11	39	45	5	12	19	16	26	30	36	32	34	336	2.12
Gas	28	18	21	20	25	21	23	34	30	37	54	53	53	77	66	69	133	762	4.80
Incendiary (supposed)	48	35	64	57	46	63	44	37	48	22	40	51	32	50	41	59	42	788	4.96
Kerosene oil	36	39	46	65	85	69	75	87	120	94	109	138	172	134	125	167	193	1750	11.03
Matches	65	60	94	78	65	102	147	110	110	94	135	150	166	175	179	168	251	2149	13.54
Needles	53	57	66	72	47	50	59	79	94	46	36	75	74	101	155	175	149	1397	8.80
Overheating	26	27	28	42	40	39	39	45	40	61	63	58	60	69	81	68	92	876	5.52
Sparks	31	27	33	26	34	29	30	40	35	41	44	93	61	78	98	81	83	883	5.56
Unknown	65	78	85	94	123	90	107	111	121	188	116	146	140	123	88	117	128	1925	12.13
Vapors igniting	7	12	11	4	14	13	5	10	10	6	7	11	15	24	23	13	32	217	1.37
Water Pipes, attempting to thaw	6	5	13	21	9	7	11	8	1	4	5	35	15	21	28	9	19	217	1.37
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	15,872	100.

## EXHIBIT C.

Review of hours in day when alarms were received, for seventeen years, from March 1st to March 1st, of each year.

Years.		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Total	Per Ct.
Day Service.	6 to 7 A.M.	7	10	11	10	11	17	17	16	10	12	16	22	33	28	27	18	27	292	3.074
	7 " 8 "	13	10	12	21	19	14	25	18	17	33	25	25	27	28	42	46	29	404	
	8 " 9 "	14	18	20	22	31	22	21	23	37	34	26	32	41	31	44	44	53	513	
	9 " 10 "	23	14	25	23	15	27	25	38	22	30	36	44	49	48	47	42	51	559	19.37
	10 " 11 "	15	24	24	26	34	23	32	26	26	43	36	51	66	48	66	54	67	661	
	11 " 12 noon	23	17	24	28	32	19	26	36	29	37	39	46	42	66	57	50	74	645	
	12 " 1 P.M.	27	24	29	22	29	27	30	33	27	36	36	40	62	61	73	50	63	669	4.473
	1 " 2 "	13	22	23	33	28	23	32	20	29	34	48	63	35	63	61	58	66	651	
	2 " 3 "	18	18	38	27	29	21	35	36	28	38	51	48	42	57	59	69	72	686	
	3 " 4 "	24	16	39	28	28	13	39	41	31	40	46	70	53	66	64	64	66	728	28.18
4 " 5 "	23	22	31	34	28	8	45	45	42	56	50	87	67	62	81	55	66	802		
5 " 6 "	48	25	40	42	45	20	44	53	59	53	74	74	71	60	63	70	90	937		
Night Service.	6 " 7 "	43	39	46	37	44	49	35	55	55	58	64	90	80	80	83	95	111	1064	5.890
	7 " 8 "	30	39	49	50	54	55	63	60	62	57	91	95	80	95	93	105	114	1192	
	8 " 9 "	39	35	45	45	42	42	58	58	67	91	82	88	100	96	78	78	110	1154	
	9 " 10 "	32	24	36	49	40	31	56	57	54	62	58	65	71	80	79	90	96	980	37.05
	10 " 11 "	38	28	28	40	29	37	39	37	57	48	50	66	58	67	64	76	71	823	
	11 " 12 Md'n	17	23	31	17	23	26	45	35	42	37	29	50	42	53	52	60	85	667	
	12 " 1 A.M.	24	19	20	20	33	33	26	34	25	36	46	45	38	38	32	40	529	2.445	
	1 " 2 "	15	23	23	15	27	30	24	32	29	30	25	45	26	35	30	46	47	502	15.40
	2 " 3 "	8	20	21	16	24	26	22	20	21	19	34	24	26	31	23	32	34	401	
	3 " 4 "	7	17	13	16	12	35	18	29	18	22	23	27	35	30	29	29	37	397	
4 " 5 "	13	14	10	17	10	28	20	13	14	10	21	30	20	29	25	19	29	322		
	7	9	10	10	15	36	14	12	10	17	19	14	18	24	28	22	29	294		
Totals		521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	15,872	100

## EXHIBIT D.

Review of days of the week when alarms were received, for seventeen years, from March 1st to March 1st, of each year.

Days.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	Total	Per Ct.
Monday	83	65	88	93	85	109	139	113	98	111	130	180	143	179	191	188	253	2248	14.16
Tuesday	73	74	107	89	84	98	98	109	131	150	165	179	201	166	163	180	223	2290	14.43
Wednesday	76	87	101	98	102	95	113	130	118	122	155	187	199	227	186	188	228	2412	15.20
Thursday	65	62	84	90	98	87	131	115	115	147	136	202	171	198	192	147	204	2234	14.07
Friday	84	74	98	100	109	79	111	123	138	162	139	157	157	180	181	223	203	2318	14.60
Saturday	65	81	88	93	112	103	122	133	120	137	169	189	155	171	223	221	214	2396	15.10
Sunday	75	77	82	85	79	91	84	96	100	93	121	148	163	155	160	163	202	1974	12.44
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	15,872	100.

## EXHIBIT E.

Review of grade of losses for seventeen years, commencing January 1st and ending December 31st, of each year.

Years	Total Al'm	No Loss	Under \$100	\$100 to \$500	\$500 to \$1000	\$1000 to \$5000	\$5000 to \$10,000	\$10,000 to \$15,000	Over \$15,000	Total Fires with Loss	Average loss to Total fires with loss.
1881	558	214	156	84	32	47	11	7	7	344	\$1,357.86
1882	502	173	124	87	32	54	13	5	14	329	2,914.39
1883	641	270	124	109	30	64	14	14	16	371	3,053.86
1884	633	235	169	93	46	57	14	3	16	398	2,766.96
1885	655	258	167	98	41	62	11	4	14	397	3,103.91
1886	687	239	217	125	39	43	12	3	9	448	2,431.24
1887	754	294	197	115	51	65	16	6	10	460	1,500.98
1888	834	280	262	140	45	72	12	3	20	554	1,862.23
1889	788	294	220	137	46	54	20	5	12	494	9,756.84
1890	933	371	283	140	39	68	15	3	14	562	1,937.52
1891	1012	406	307	130	45	83	16	9	16	606	2,494.51
1892	1196	481	350	185	64	83	14	9	10	715	1,183.76
1893	1233	549	342	161	50	86	22	5	18	684	7,346.14
1894	1233	519	331	202	60	83	16	8	14	714	2,418.24
1895	1234	515	365	180	55	84	15	4	16	719	1,662.41
1896	1397	584	383	221	64	102	22	2	19	813	1,681.63
1897	1435	478	543	229	60	88	17	10	10	957	899.86
Totals	15,725	6160	4540	2436	799	1195	260	100	235	9565	\$2,845.43
Per Ct.	100.	39.17	28.87	15.49	5.08	7.60	1.65	.64	1.50	60.33	









TWENTY-FIFTH

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ANNUAL REPORT

OF THE

*Boston Protective Department,*

From March 1, 1898, to March 1, 1899.

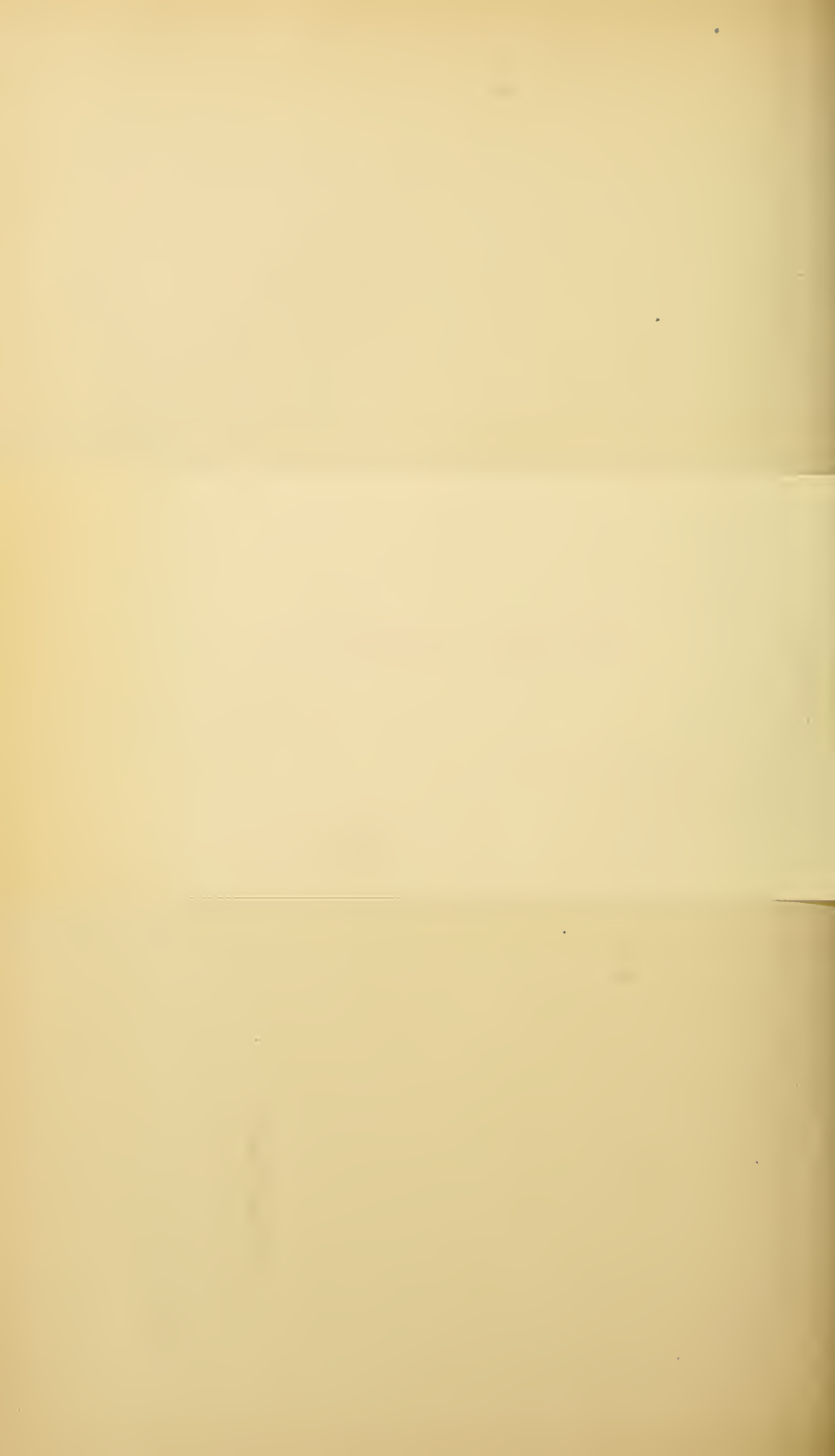


COMPLIMENTS OF

SAMUEL ABBOTT, JR.,

SUPERINTENDENT.

NO. 40 PURCHASE STREET,  
BOSTON, MASS.





TWENTY-FIFTH  
ANNUAL REPORT

OF THE

Boston Protective Department,

From March 1, 1898, to March 1, 1899.

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## OFFICERS.

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*President :*

EUGENE E. PATRIDGE.

*Vice-President :*

GEO. A. EASTMAN.

*Secretary-Treasurer :*

EDWARD SPAULDING.

*Directors :*

TO SERVE UNTIL MARCH, 1899.

A. L. BARBOUR.

GEO. A. EASTMAN.

W. H. ELLISON.

TO SERVE UNTIL MARCH, 1900.

T. L. O'BRIEN.

E. E. PATRIDGE.

C. H. PORTER.

TO SERVE UNTIL MARCH, 1901.

B. B. WHITTEMORE.

W. H. ROGERS,

G. C. HOLT.



Boston, March 8th, 1899.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT :—

The directors submit herewith the 25th Annual Report of the Department, with the reports of the Superintendent, Secretary, Treasurer and Medical Officer, and the usual statistical tables.

The Board recommend, first, that the active duties of the Department be continued for another year; second, that the Directors be authorized to expend for the maintenance of the Department a sum not exceeding Seventy Thousand Dollars.

For the Directors,

E. E. PATRIDGE,

*President.*

# TREASURER'S RECEIPTS AND EXPENDITURES OF THE BOSTON

1898.		
March.	By Cash on hand, Balance . . . . .	\$12,300.07
	Balance of Assessment January 1, 1898 . . . . .	24,113.57
	Collected of Assessment July 1, 1898 . . . . .	31,980.07
	Collected of Assessment January 1,* 1899 . . . . .	4,797.56
	Cash received for Watch Duty . . . . .	886.97
	Cash received for Interest . . . . .	329.42
	Cash received for Automatic Credit . . . . .	60.99
	Cash received from Suspense Account . . . . .	28.96
	Cash received for Telephone Rebate . . . . .	9.70
	Cash received for Tools Lost . . . . .	1.35
		\$74,508.66
	*Balance uncollected . . . . .	\$25,949.78

## NET RUNNING EXPENSES.

March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	23,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	51,681.42
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08
March, 1893, to March, 1894 . . . . .	58,655.41
March, 1894, to March, 1895 . . . . .	56,125.42
March, 1895, to March, 1896 . . . . .	61,423.48
March, 1896, to March, 1897 . . . . .	60,171.90
March, 1897, to March, 1898 . . . . .	60,767.10
March, 1898, to March, 1899, reserved for Equipment of House No. 3 \$3,000 and 64,875.01	

## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1899.

## To Cash paid:—

Pay-roll, Permanent force, Company No. 1 . .	\$18,492.61
Auxiliary " " " . .	4,251.21
Call " " " . .	318.82
Permanent " " No. 2 . .	17,316.62
Auxiliary " " " . .	4,119.32
Call " " " . .	697.03
Secretary, Treasurer and Office . . . . .	2,849.98
Medical Officer and Bills . . . . .	547.00
Rent and Taxes of Houses . . . . .	5,611.49
Hay and Grain . . . . .	876.24
Wagon and Harness Repairs . . . . .	1,130.53
Horse shoeing . . . . .	614.13
Fuel . . . . .	559.47
Gas . . . . .	490.20
Washing . . . . .	416.56
Supplies . . . . .	555.85
New England Telephone and Telegraph Co. . .	661.28
Automatic Fire Alarm and Electric Apparatus .	418.12
Water Tax . . . . .	108.40
Repairs and Furnishing of Houses . . . . .	633.29
Veterinary Services . . . . .	314.40
Sundries . . . . .	259.00
Directors' Meetings . . . . .	130.00
Printing and Stationery . . . . .	1,835.30
Advertising Annual Meeting . . . . .	54.50
Auditors' Fees . . . . .	60.00
Surety Bond . . . . .	75.00
Employers' Liability . . . . .	438.87
Fire Insurance (5 years) . . . . .	200.00
Horses purchased . . . . .	783.00
New Covers . . . . .	1,000.00
Thomas R. Will's funeral (member) . . . .	45.00
	<hr/>
	\$65,863.22
Paid for watch duty . . . . .	414.33
Assessments remitted . . . . .	14.85
	<hr/>
	\$66,292.40
Equipment of House No. 3 (from reserve) see Director's Report and Vote at Meeting of March, 1898	3,000.00
Balance, Cash on Hand . . . . .	5,216.26
	<hr/>
	\$74,508.66

E. &amp; O. E.

EDWARD SPAULDING, *Treasurer.*

BOSTON, March, 14, 1899.

Audited and found correct to date.

FRED'K. W. PORTER,	} <i>Auditing Committee.</i>
EDWARD D. BLAKE,	
JOHN H. EDDY,	



## SUPERINTENDENT'S REPORT.

HEADQUARTERS PROTECTIVE DEPARTMENT, }  
 OFFICE OF SUPT. No. 40 PURCHASE ST. }  
 BOSTON, March 1st, 1899.

TO THE PRESIDENT AND BOARD OF DIRECTORS:

*Gentlemen:* In compliance with Article IV. of By-Laws of the corporation of the Boston Protective Department, authorized by an Act entitled "An act to incorporate the Boston Protective Department," passed March 9, 1874, amended February 4, 1879, I herewith submit the Twenty-fifth Annual Report of operations of the Department for the year 1898, ending March 1, 1899.

The several tables of statistics heretofore submitted, have been extended to include the period above mentioned. (See Secretary's Report and Exhibits.)

### ORGANIZATION.

The organization of the Department continues the same as last year.

#### BUILDINGS, ALARMS, FIRES, INSURANCE AND LOSS FOR 1898.

On January 1, 1898 there were 24,588 brick, stone, iron, and 53,754 frame buildings in the City of Boston making a total of 78,342 buildings; during the year there were 395\* brick, stone, iron, and 1262\* frame buildings completed. 2 brick and 34 frame buildings were totally destroyed by fire, †82 brick and †28 frame buildings were demolished in various parts of the city, making the total number of buildings at the end of the year 24,899 brick, stone, iron, and 54,954 frame: grand total 79,853 buildings.

The total alarms during the year 1898 (January 1st to December 31st inclusive) were 1,499 of which 1,273 were for fires; of these 591 occurred in brick, stone and iron buildings, 576 in frame buildings, and 106 outside; the number of fires to 1,000 population were 2.54.

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\*By courtesy of Inspection of building Department City of Boston.

†See page 26,

Of these fires 995 were confined to the floor where they originated, 1,231 to the building or place where they originated, 36 extended to adjoining property, and 6 extended beyond adjoining property; the per cent. of fires confined to buildings where they originated was 96.

The total loss on buildings and contents was \$1,415,884.93; total insurance, \$12,276,751.92 and the total insurance loss was \$1,329,605.50; the above was divided as follows:—

Total loss on buildings . . . . .	\$452,632.28
Total insurance loss on buildings . . . . .	438,316.94
Total insurance on buildings . . . . .	7,975,555.55
Per cent of total loss not insured on buildings . . . . .	3.16
Total loss on contents . . . . .	963.252.65
Total insurance loss on contents . . . . .	891,288.56
Total insurance on contents . . . . .	4,301,196.37
Per cent of total loss, not insured, on contents . . . . .	7.47

The loss per capita was \$2.83 which does not include the Marine Fire and Rent losses.

The total Marine fire loss was \$47,350.00

On ships, vessels and cargoes paid by insurance companies \$47,000.00

The total insurance thereon was \$1,150,500.00

The total Rent loss was \$1,533.28, and the total insurance thereon was \$44,850.00

The per cent of grade of alarms and losses for 1898 were as follows:—

35.49 had no loss.

34.22 the loss was under \$100.

16.68 “ “ “ from \$100 to \$500.

5.07 “ “ “ “ \$500 to \$1,000.

6.21 “ “ “ “ \$1,000 to \$5,000.

.93 “ “ “ “ \$5,000 to \$10,000

.40 “ “ “ “ \$10,000 to \$15,000

1.00 “ “ “ over \$15,000.

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THE OPERATIONS OF THE DEPARTMENT FOR THE YEAR  
ENDING March 1st, 1899, ARE AS FOLLOWS:—

		Co. No. 1.	Co. No. 2
Alarms.	{ Bell . . . . .	496	787
	{ Still . . . . .	65	97
	{ Automatic . . . . .	62	22
Responded to by	{ Wagon . . . . .	499	557
	{ Callmen . . . . .	198	517
Total alarms	.	623	906
Hours Duty	{ At fires . . . . .	494.45	473.53
	{ After fires protecting goods . . . . .	161.04	71.12
	{ Watch . . . . .	3,188.35	2,038.38
	{ Total . . . . .	3,844.24	2,583.43
Covers Used	{ On goods . . . . .	1,709	907
	{ " protecting from storms . . . . .	63	5
	{ On roofs . . . . .	95	94
	{ Total . . . . .	1,867	1,006
Extinguishers used	.	21	17

*Second Section (in section) Called in Service.*

First Alarm	{ When 1st out section was at a fire	15	13
	{ When all other sections were at a fire	0	1
	{ When covering a company district	1	8
Second Alarms	{ 2d Alarms . . . . .	22	10
Telephone calls	.	11	2
Messenger calls	.	2	1
Covering	{ When both sections of a company were at a fire . . . . .	7	3
Auxiliary Force retained on day duty after a fire	.	6	10
" " " " " extra hazardous days	.	2	1
Total	.	66	49

The total number of alarms and fires was 1,505 it being 22 less than last year.

There were 1,193 $\frac{4}{5}$  hours' fire service, 4,976 $\frac{1}{2}$  hours' watch duty and 217 $\frac{2}{3}$  hours' service, protecting buildings and contents from storms equivalent to 638 days of 10 hours each, 7 hours and 40 minutes, it being 6 days, 4 hours and 30 minutes more, in comparison with the previous year. There were 2,616 covers used in covering goods at fires, 64 on goods and 189 on roofs, protecting

the buildings and contents after fires from additional damage by storms; which makes a total of 2,869 covers used; representing 619,704 square feet, it being 648 square feet more than was spread last year.

Review of alarms and fires for eighteen years, from 1881 to 1899 inclusive; commencing March 1st, and ending the last day of February of each year.	In City Districts,	Exhibit A.	Page 29
	Causes,	" B.	" 30
	Hours of the Day, { 65 per cent of alarms and fires have occurred between the hours of 12 o'clock noon and 12 o'clock midnight. }	" C.	" 31
	Days of the Week,	" D.	" 31
	Insurance and loss on buildings and contents,	"	18
Review of losses on buildings and contents for eighteen years from 1881 to 1898 inclusive, commencing January 1 and ending December 31st of each year.	Insurance and Loss, { 6.09 per cent of total loss on buildings and contents was not insured. }	"	25
	Grade of Losses, { 64.51 per cent of all alarms were for fires with a loss; the average loss for each fire was \$1,464.20. }	Exhibit E.	Page 31

## SPRINKLERS.

The following are operations of the department in buildings equipped with the sprinkler system, for the year ending March 1, 1899.

Date.	Street.	Duty Performed	Covers Spread.	Sprinkler Heads replaced	Loss.		Cause.
		H. M.			Building.	Contents.	
Mar. 5, 1898	90 Wareham,	1.48	13	3	None	\$1,562.00	Fire operated sprinkler heads.
" 17, "	275 Congress,	.40	0	1	None	None	Defective sprinkler head.
Apr. 8, "	1-15 Purchase,	1.08	12	1	None	232.30	Breaking of sprinkler head.
" 16, "	85-91 Essex,	1.14	4	1	None	1,055.01	Unknown.
" 19, "	Tileston Sq., }	5.39	128	4	\$202.57	12,843.62	Fire operated sprinkler heads.
Aug. 10, "	Tileston Bldg., }	1.30	6	3	233.34	None	Fire operated sprinkler head.
	Allen and Blossom.						
Sept. 12, "	85-91 Essex,	.32	0	0	None	None	Trouble in sprinkler valve.
Oct. 6, "	89 Broad,	.40	0	1	None	None	Sprinkler head leaking.
" 14, "	279 Congress,	1.22	0	1	None	None	Sprinkler head leaking.
" 31, "	" "	.40	0	1	None	None	Sprinkler head leaking.
Nov. 3, "	275 "	3.17	32	1	None	314.21	Power Belt breaking sprinkler head.
Dec. 7, "	46 Wareham,	2.25	0	1	None	None	Unknown.
" 12, "	Tileston Sq., }	6.06	0	1	None	None	Probably frost affecting sprinkler head.
" 28 "	Tileston Bldg., }	1.16	0	1	None	None	Fire operated sprinkler head.
	Fulda,						
Jan. 2, 1899	279 Congress,	.45	5	0	None	None	Probably frost affecting sprinkler pipe.
" 10, "	264 Washington,	.40	0	1	None	None	Sprinkler head leaking.
" 31, "	151-57 Essex,	2.08	0	1	None	None	Freezing of water in pipe.
Feb. 3, "	19-25 Summer St.,	1.09	3	1	None	None	Fire operated sprinkler head.
" 12, "	89 93 Franklin,	1.50	2	0	None	None	Probably frost affecting sprinkler pipe.
" 14, "	42 50 Binford,	1.48	0	1	None	None	Probably frost affecting sprinkler pipe.
" 14, "	Tileston Sq., }	10.18	0	1	None	None	Probably frost affecting sprinkler head.
	Tileston Bldg., }						

The same friendly feeling between the Fire and this Department continues to exist.

In conclusion, I desire to express my sincere thanks to all departments or persons who have in any way assisted this Department during the past year.

Respectfully submitted,

SAMUEL ABBOTT, JR.

*Superintendent.*

## SCHEDULE OF PROPERTY.

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES NOS. ONE  
AND TWO AND IN THE OUTLYING DISTRICTS.

---

Horses . . . . .	10
Wagons "complete" . . . . .	4
Wagons "spare" . . . . .	1
Wagon supply . . . . .	1
Pungs "complete" . . . . .	2
Wagons for Superintendent . . . . .	2
Sleighs " " . . . . .	2
Rubber covers "stock" . . . . .	617
Rubber covers, roof . . . . .	22
Canvas covers for roofs . . . . .	4
Fire extinguishers . . . . .	8
Life saving blankets . . . . .	4
Sets of patent double harnesses . . . . .	4
Single harnesses . . . . .	2
Lead reins, 4 horse . . . . .	4
Wagon poles "extra" . . . . .	2
Wheels "extra" . . . . .	4
Whiffletrees "extra" . . . . .	5
Lead bars, 4 horse . . . . .	4
Bedsteads with bedding . . . . .	50
Billiard table "complete" . . . . .	1
Fire hats . . . . .	48
Neccessary tools and equipments.	
" stable equipments.	
" extra parts of harnesses.	
" house furniture and fixtures.	
" telegraph apparatus.	
" gas fixtures.	
" supplies.	
" stationery.	

For detailed statement, see Quarterly Report at Superintendent's Headquarters.



# Duty performed by Company No. 1, from March 1, 1898, to March 1, 1899.

Months.	Alarms responded to.							Hours on duty.				Covers spread.				Second Section of Company calls.										Totals.						
	Box.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	Watching after Fires.			Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.		Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous, days.	Protecting Roofs.	
										H. M.	H. M.	H. M.																				H. M.
March, 1898	38	7	6	40	14	51	1	37.31	10.35	288.35	336.41	108	12	120	6	1				2												5
April, "	42	3	5	42	24	50	2	56.27	13.59	121.30	191.56	276	8	284		1	1				4						1					6
May, "	31	2	6	31	12	39		34.59	18.46	210.37	264.22	204	8	212	2	1					2											3
June, "	48	7	1	39	26	56		24.59	.51	66.12	92.05	44	—	44				1				3					1					5
July, "	43	6	5	40	20	54		29.41	8.21	136.45	174.47	30	18	48	4	1					2											4
Aug., "	40	3	11	42	14	54		30.02	22.11	684.25	745.38	108	11	2 181	3							2					1					3
Sept., "	33	2	2	31	9	37		42.38	39.27	519.24	601.29	330	14	398								2					3					8
Oct., "	34	1	2	29	9	37	3	26.27	6.04	177.38	210.09	65	5	70	3	2										2	1					3
Nov., "	40	8	8	49	18	56	1	34.18	6.16	132.56	173.30	92	6	98	1	1					1					1						3
Dec., "	39	9	7	45	14	55	1	42.43	1.30	376.04	420.17	97	—	97		1					2					2	1					9
Jan., 1899	51	8	4	53	19	63	1	46.52	20.01	150.01	216.54	200	6	206	2	1					1											5
Feb., "	57	9	5	58	19	71	4	79.08	13.00	324.28	416.36	95	7	109		6					1											12
Totals . . .	496	65	62	499	198	623	13	494.45	161.04	3188.35	3844.24	1709	95	63 1867	21	15	1	1	22			11	2	7	6	2						66



# Duty performed by Company No. 2, from March 1, 1898, to March 1, 1899.

Alarms responded to.				Hours on duty.				Covers spread.			Second section of Company calls.														
Months.	Box.	Still.	Automatic.	Wagons responded.	Callmen responded.	Totals.		Totals.			Extinguishers used.		1st Alarms.		2d Al's.		Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during day time.	Auxiliary Force on duty extra hazardous days.	Protecting Roofs.	Totals.	
						At Fires.	Extra at Fires.	Watching after Fires.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.									With 2d section wagon during daytime.
March, 1898	69	7	3	51	39	79	1	H. M. 38.31	H. M. 67.10	H. M. 105.41	52	2	54	1	1	1			3			1			2
April, "	57	7	2	50	35	66	1	51.18	133.08	191.48	137	1	138	1	2	1									7
May, "	62	10	1	46	40	73		31.48	124.00	155.48	96		96		1	2									5
June, "	72	9		45	51	81		27.21	129.05	156.26	16		16	2	1	1									2
July, "	90	12	1	55	74	103		44.01	239.08	283.09	68	8	76	5	2	2									6
Aug. "	51	3	4	37	31	58		34.56	213.25	255.28	94	14	108			1		1							1
Sept. "	54	10	1	40	32	65		40.27	21.10	61.37	138	5	143	2	1	1									3
Oct. "	59	6		43	30	65		28.32	65.32	97.04	7	8	15	2	1										1
Nov., "	53	5		35	36	58		26.17	95.10	128.27	38	8	46		1	1									5
Dec., "	80	14	3	57	62	97	1	57.40	15.13	323.23	110	22	132	3	2	1									4
Jan., 1899	70	6	4	50	45	80	1	44.51	10.15	150.45	107	7	118		2	1		2							4
Feb., "	70	8	3	48	42	81		48.11	21.15	549.35	44	19	64	2	1	1									9
Totals.	787	97	22	557	517	906	4	473.53	2038.38	2583.43	907	94	5	1066	17	13	1	8	10	3					49

OFFICE OF SECRETARY-TREASURER,  
40 PURCHASE STREET,  
BOSTON, MARCH 1, 1899.

TO THE PRESIDENT AND DIRECTORS:

*Gentlemen.*—The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1898, to Dec 31, inclusive, is as follows:

Insurance on buildings . . . . .	\$7,975,555.55
Loss on buildings . . . . .	438,316.94
Insurance on contents . . . . .	4,301,196.37
Loss on contents . . . . .	891,288.56
Insurance on marine risks . . . . .	1,150,500.00
Loss on marine risks . . . . .	47,000.00
Insurance on rents . . . . .	44,850.00
Loss on rents . . . . .	1,533.28
Sprinkler insurance . . . . .	52,000.00
Sprinkler loss . . . . .	1,951.52

CAUSES OF FIRES AND ALARMS.

MARCH 1, 1898. TO FEB. 28, 1899, INCLUSIVE.

Ashes in wooden receptacles, hot . . . . .	20
Buildings, defective . . . . .	49
Causes not otherwise enumerated . . . . .	243
Combustion spontaneous . . . . .	39
Electricity . . . . .	33
Fireworks . . . . .	33
Gas . . . . .	82
Incendiary (supposed) . . . . .	37
Kerosene oil . . . . .	202
Matches . . . . .	211
Needless . . . . .	195
Overheating . . . . .	67
Sparks . . . . .	99
Unknown . . . . .	137
Vapors igniting . . . . .	27
Water pipes attempt to thaw . . . . .	31
	<hr/>
	1,505

## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March, 1, 1899.

Months	Alarms.								Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.			
	Bell.	Still.	Automatic.	Ext. by occt.	Total.	Sprinklers operated on fires.	Sprinkler breaks and leaks.	Covers.	Roof.	Hours.		Minutes.	Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra covers.
March, 1898	87	25	10	7	129	1	1	160	14	6	93	03	355	45	10	35	..	..	
April, " "	77	21	7	16	121	1	1	413	9	..	100	45	254	38	21	27	..	..	
May, " "	76	25	6	2	109	..	..	300	8	3	78	27	334	37	18	46	..	..	
June, " "	100	31	3	3	137	..	..	60	..	2	82	53	195	17	..	54	..	..	
July, " "	114	40	5	3	162	..	..	98	26	9	117	55	375	53	8	21	..	..	
August, " "	75	19	15	1	110	1	1	262	25	3	85	45	897	50	29	18	2	2	
Sept., " "	66	22	6	2	96	..	1	468	19	2	77	43	540	34	39	27	54	..	
Oct., " "	72	18	2	2	94	..	3	72	13	3	64	13	243	10	9	04	..	..	
Nov., " "	77	27	8	3	115	..	1	130	14	1	88	57	228	06	13	16	..	..	
Dec., " "	98	35	8	..	141	1	2	207	22	3	136	28	376	04	1	30	..	..	
Jan., 1899	104	27	8	4	143	..	3	307	13	2	110	28	300	46	30	16	4	4	
Feb., " "	106	44	8	3	158	1	3	139	26	2	157	11	874	03	34	15	4	4	
	1052	331	86	46	*1515	5	16	2616	189	36	1193	48	4976	43	217	09	64	64	

\*10 were sprinkler breaks.

\*10 were sprinkler breaks.

Comparison of Fires, Covers Spread, Fire and Watch Duty Performed for nineteen years, each year commencing March 1, and ending the last day of February

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1,015	2,683	820	05	2,611	30
1892	1,242	2,722	1,061	00	5,554	30
1893	1,189	3,455	1,155	45	5,179	15
1894	1,276	2,730	967	40	5,686	..
1895	1,296	2,462	997	45	4,964	45
1896	1,310	2,712	1,075	36	3,557	39
1897	1,527	2,551	1,097	03	5,047	38
1898	1,505	2,616	1,193	48	4,976	43



## FIRES AND ALARMS.

BY MONTHS, DAYS OF THE WEEK, DAYS OF THE MONTH, AND HOURS OF  
THE DAY, FROM MARCH 1, 1898, TO MARCH 1, 1899.

Months.		Days of Week.		Days of the Month.	Hours of the Day.	
				1	40	
				2	50	
March, 1898.	127	Monday . .	244	3	68	
				4	81	
April "	118	Tuesday .	230	5	48	
				6	41	
May, "	109	Wednesday	229	7	37	
				8	39	
June, "	136	Thursday .	185	9	45	
				10	56	
July, "	162	Friday . .	218	11	66	
				12	61	
August, "	110	Saturday .	203	13	61	
				14	57	
September, "	95	Sunday . .	196	15	46	
				16	43	
October, "	94			17	81	
				18	64	
November, "	114			19	63	
				20	23	
December, "	142			21	60	
				22	40	
January, 1899.	139			23	30	
				24	47	
February, "	159			25	55	
				26	40	
				27	43	
				28	45	
				29	32	
				30	32	
				31	17	
Totals,	1505		1505		1505	

## DISTRICTS WHERE ALARMS WERE GIVEN.

[illegible]



## CLASSIFICATION OF COVERS SPREAD.

67 Fires of 1 Cover each . . .	67	3 Fires of 23 Covers each . . .	66
40 " " 2 Covers " . . .	80	1 " " 24 " " . . .	24
32 " " 3 " " . . .	96	2 " " 25 " " . . .	50
13 " " 4 " " . . .	52	1 " " 26 " " . . .	26
10 " " 5 " " . . .	50	1 " " 27 " " . . .	27
10 " " 6 " " . . .	60	2 " " 29 " " . . .	58
11 " " 7 " " . . .	77	1 " " 31 " " . . .	31
7 " " 8 " " . . .	56	3 " " 32 " " . . .	96
7 " " 9 " " . . .	63	1 " " 46 " " . . .	46
2 " " 10 " " . . .	20	1 " " 54 " " . . .	54
6 " " 11 " " . . .	66	1 " " 55 " " . . .	55
2 " " 12 " " . . .	24	1 " " 67 " " . . .	67
4 " " 13 " " . . .	52	1 " " 73 " " . . .	73
4 " " 14 " " . . .	56	1 " " 74 " " . . .	74
3 " " 15 " " . . .	45	1 " " 105 " " . . .	105
1 " " 16 " " . . .	16	1 " " 107 " " . . .	107
2 " " 17 " " . . .	34	1 " " 111 " " . . .	111
1 " " 18 " " . . .	18	1 " " 115 " " . . .	115
3 " " 19 " " . . .	57	1 " " 119 " " . . .	119
3 " " 20 " " . . .	60	1 " " 216 " " . . .	216
2 " " 21 " " . . .	42		
Total fires . . . . .	256	Total covers . . . . .	2616
256 Fires, 2616 Covers. Averages, $10\frac{23}{100}$ .			

## COVERS.

## STOCK COVERS.

On hand last report . . . . .	534
Received in May 1898 . . . . .	100
Total . . . . .	634
Turned over to roof use . . . . .	7
Condemned . . . . .	9
Destroyed at a fire . . . . .	1
Total . . . . .	17
Total stock covers . . . . .	617

## ROOF COVERS.

On hand last report . . . . .	21
Turned over from stock covers . . . . .	7
Total . . . . .	28
Condemned . . . . .	6
Total roof covers . . . . .	22
Total covers on hand March 1, 1899 . . . . .	639

## GRADE OF LOSSES.

Grade of Losses for the year 1898, commencing January 1st, and ending December 31st.

532	Fires with no loss.	Aggregate.	Average.
513	" " loss under \$100 . . . . .	\$17,896.92	\$ 34.89
250	" " " from \$100 to \$500 . . . . .	57,350.11	229.40
76	" " " " \$500 to \$1,000 . . . . .	56,389.08	741.85
93	" " " " \$1,000 to \$5,000 . . . . .	186,301.21	2,003.24
14	" " " " \$5,000 to \$10,000 . . . . .	84,169.75	6,012.13
6	" " " " \$10,000 to \$15,000 . . . . .	76,278.87	12,713.14
Over \$15,000 as follows:			
1	Fire Jan. 22, 118 Lincoln St., Hunt & Co. . . . .	36,093.53	\$337,498.99
1	" " 23, 350 Warren St. . . . .	21,615.00	
1	" " 30, 218 Franklin & 36 Pearl Sts., various . . . . .	24,347.07	
1	" Feb. 1, 116 Merrimac St., Bent & Co. . . . .	31,770.92	
1	" Mar. 27, 39 Summer St., Gilbert, Brooks & Tebbets . . . . .	24,228.16	
1	" Apr. 17, Hoosac Tunnel elevator . . . . .	351,430.41	62,499.85
1	" " 28, 28 Trinity Pl., Mass. Inst. Tech. . . . .	27,979.20	
1	" May 10, 107 Washington St., Chase & Co. . . . .	49,587.08	
1	" July 2, 308 Congress St., Atlas Stores . . . . .	124,033.79	
1	" Aug. 10, 28 Merchants Row, Wilson Bros. . . . .	24,722.76	
1	" " 25, 90 Arch St., Kent & others . . . . .	19,353.04	
1	" Sep. 1, 66 Summer St., Dreyfus & Sons . . . . .	120,076.60	
1	" " 25, 13 Otis St., Mark Andrews & Co. . . . .	16,128.40	
1	" Dec. 22, 73 South St., Walker, Oakley & Co. . . . .	38,842.27	
1	One partially settled fire (estimated only) . . . . .	27,290.76	
1499		\$1,415,884.93	
2	Marine losses (see tables)		

The 967 fires where there was a loss, the average was \$1,464.20.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for eighteen years, commencing January 1, 1881.

Year.	Total Fires.	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average Loss of Total Fires with Loss.
1881	558	344	\$ 467,105.82	\$ 837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,446.67	6,103.15	9,756.84
1890	933	562	1,088,887.29	1,167.08	1,937.52
1891	1,012	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	715	846,395.12	708.70	1,183.76
1893	1,233	684	5,024,765.04	2,654.39	7,346.14
1894	1,233	714	1,726,627.56	1,400.35	2,418.24
1895	1,234	719	1,195,343.28	968.62	1,662.41
1896	1,397	813	1,367,165.92	978.64	1,681.63
1897	1,435	957	861,203.64	600.15	899.86
1898	1,499	967	1,415,884.93	944.55	1,464.20
Total	17,224	10,532	\$27,561,153.37	\$1,600.16	\$2,616.90



## CAUSES OF ALARMS AND FIRES.

(March 1898 to March 1899.)

Alarms, false . . . . .	31
Alarms needless . . . . .	164
Alcohol lamp . . . . .	1
Ashes hot . . . . .	6
Ashes hot in wooden receptacles . . . . .	14
Attempts to thaw water pipes . . . . .	31
Assistance called for . . . . .	3
Back draft . . . . .	1
Boiling over of fat . . . . .	8
"    "    tar . . . . .	2
"    "    asphalt . . . . .	1
Bonfires . . . . .	6
Boys, set by . . . . .	40
Brush fires . . . . .	8
Candles lighted . . . . .	19
Chimney fires . . . . .	21
Cigars lighted . . . . .	22
Coals from stove . . . . .	1
Cigarettes . . . . .	5
Chemicals . . . . .	1
Defective chimneys . . . . .	18
"    construction . . . . .	10
"    furnaces . . . . .	1
"    flues . . . . .	11
"    ovens . . . . .	3
"    stoves . . . . .	1
"    stove pipes . . . . .	1
"    ranges . . . . .	4
Electric light wires . . . . .	32
"    motors . . . . .	1
Explosion of water back . . . . .	1
Fire crackers . . . . .	23
Fire works . . . . .	10
Friction from machinery . . . . .	7
Fumigating . . . . .	3
Gas . . . . .	1
"    explosions . . . . .	3
"    jets lighted . . . . .	19
"    "    and curtains . . . . .	42
"    leaks . . . . .	11
"    stoves . . . . .	5
"    metres . . . . .	1

Gasoline stoves . . . . .	4
Gasoline torches and furnaces . . . . .	7
Grass fires . . . . .	8
Hot coals . . . . .	4
“ iron . . . . .	5
“ box . . . . .	1
Incendiary . . . . .	27
“ supposed . . . . .	10
Kerosene-oil . . . . .	4
Kerosene-oil lamps . . . . .	24
“ “ breaking or upsetting . . . . .	77
“ “ exploding . . . . .	46
“ lanterns . . . . .	2
“ stoves . . . . .	49
Lime slacking . . . . .	2
Lightning . . . . .	6
Matches, careless use of . . . . .	139
“ and children . . . . .	49
“ and rats . . . . .	23
Molders flask . . . . .	1
Malt mills . . . . .	2
Naphtha lamps (painters) . . . . .	1
Overheated boilers . . . . .	4
“ chimneys . . . . .	3
“ dry rooms . . . . .	3
“ furnaces . . . . .	11
“ kiln . . . . .	1
“ ovens . . . . .	1
“ ranges . . . . .	1
“ stoves . . . . .	43
“ steampipes . . . . .	4
“ smoke pipes . . . . .	6
Rekindling of fires . . . . .	4
Roofers furnaces . . . . .	2
Rubbish fires . . . . .	13
Smoky chimneys . . . . .	3
Smoky stoves . . . . .	9
Soot . . . . .	6
Sparks from chimneys . . . . .	20
“ “ coffee roasters . . . . .	1
“ “ forges . . . . .	8
“ “ fire places . . . . .	1
“ “ furnaces . . . . .	4
“ “ grates . . . . .	4
“ “ horseless engine . . . . .	1
“ “ locomotives . . . . .	11
“ “ ovens . . . . .	1



Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for eighteen years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured for eighteen years.

## BUILDINGS.

Year	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	5.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	6.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	8.68	23,478.10	358,459.20	7.00
1884	3,227,819.93	189,168.83	5.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	7.22	24,240.96	246,042.71	9.85
1886	2,733,588.56	275,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	5.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,993.85	5.07	12,302.39	240,236.25	5.12
1889	4,533,384.25	911,332.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
1893	8,047,357.57	1,289,054.22	16.02	115,994.73	1,405,048.95	8.26
1894	6,849,379.33	636,964.32	9.30	236,195.41	873,159.73	27.05
1895	6,657,272.17	433,404.36	6.51	44,048.45	477,452.81	9.22
1896	9,154,604.15	589,103.88	6.43	34,599.75	623,703.63	5.54
1897	8,637,104.31	281,515.16	3.26	21,091.21	302,606.37	6.96
1898	7,975,555.55	438,316.94	5.49	14,315.34	452,632.28	3.16
Tot.	\$92,905,382.23	\$7,220,528.86	7.77	\$1,241,993.83	\$8,462,522.70	14.68

## CONTENTS.

Year	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$31,813.20	\$336,605.78	9.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,409.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	8.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.81	715,197.05	20.01	76,243.41	791,440.47	9.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
1893	10,332,586.55	3,373,037.42	32.64	246,678.67	3,619,716.09	6.82
1894	3,893,242.42	669,857.10	17.25	183,610.73	853,467.83	21.51
1895	3,365,799.34	641,073.78	19.04	76,816.69	717,890.47	10.70
1896	4,060,722.82	674,830.31	16.61	68,631.93	743,462.29	9.23
1897	3,597,843.02	515,030.92	14.31	43,566.35	558,597.27	7.79
1898	4,301,196.37	891,288.56	20.72	71,964.09	963,252.65	7.47
Tot.	\$69,979,758.31	\$16,841,289.38	24.06	\$2,257,341.28	\$19,098,630.67	11.81

## TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co.'s	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance
1881	\$3,905,227.61	\$420,404.61	16.76	\$467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,255.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.90	11.69	1,031,676.72	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,511,674.51	14.47
1892	8,481,051.58	731,948.78	8.62	846,395.12	9.97
1893	18,380,444.12	4,662,091.64	25.36	5,024,765.04	27.32
1894	10,742,621.75	1,306,821.42	12.16	1,726,627.56	16.05
1895	10,023,071.51	1,074,478.14	10.72	1,195,343.28	11.92
1896	13,215,326.97	1,263,934.19	9.56	1,367,165.92	10.35
1897	12,234,947.33	796,546.08	6.51	861,203.64	7.04
1898	12,276,751.92	1,329,605.50	10.83	1,415,884.93	11.53
Tot.	\$162,885,140.54	\$24,061,818.24	14.77	\$27,561,153.37	16.95

Respectfully submitted,

EDWARD SPAULDING *Secretary*

# STATISTICS OF ALARMS AND FIRES FOR EIGHT YEARS.

Number of Buildings in the City, &c.										Number of Alarms and Fires.										
Year	Area Sq. Mile.	Popu- lation Census 1885.	Brick, &c., Buildings last Report.	New Brick Build- ings Completed.	Brick Buildings Totally Destroyed.	Total Brick Build- ings.	Frame Buildings last Report.	Frame Buildings Completed (New).	Frame Buildings Totally Destroyed.	Total Frame Buildings.	Grand Total Brick and Frame	Total Alarms.	Brick, Iron, &c.	Frame.	Outside.	Total Fires.	Confined to floor originated.	Confined to Build- ing originated.	Extended to Ad- joining Property.	Extended beyond Adjoining Prop-ty.
1881	37.04	448,477	22,700	329	1	22,700	43,800	1964	1	43,800	66,500	980	424	389	87	900	730	780	32	1
1882	"	"	23,028	292	13	23,267	45,763	1611	3	45,763	68,791	1196	510	495	89	1094	955	966	38	1
1883	"	"	23,267	308	12	23,653	47,371	1717	100	47,371	70,638	1233	500	403	264	1107	761	876	24	3
1884	"	"	23,653	328	1	23,980	48,988	1445	11	50,442	72,641	1233	477	460	115	1052	777	897	37	3
1885	"	"	23,980	327	95	24,292	50,442	1498	67	51,873	74,422	1397	546	457	96	1024	772	886	40	2
1886	"	496,920	23,980	337	25	24,292	50,442	1498	67	51,873	76,165	1397	546	485	101	1132	831	986	34	11
1887	"	"	24,292	364	68	24,588	51,873	2002	121	53,754	78,342	1438	613	542	126	1281	983	1107	39	9
1888	"	500,000	24,588	395	*84	24,899	53,754	1262	*62	54,954	79,853	1499	591	576	106	1273	995	1231	36	6

Marine Fire Loss and Insurance.										Renus, Fire Loss and Ins.				
Total Insur- thereon.	Total Insur- ance thereon.	No. of Fires to 1000	Per cent. of Fires continued to Build- ing.	Loss Per Capita.	Total Loss thereon.	Total Insur- ance there- on	Total Insur- ance Loss thereon.	Total Loss thereon.	Total Insur- ance there- on.					
\$1,511,674.51	\$10,447,876.87	2.00	.86	\$3.37	\$1,208.12	\$ 3,000.00	\$ 1,208.12	\$ 5,325.31	\$ 56,100.00					
846,395.12	731,948.78	2.44	.88	1.89	25,057.81	58,057.57	25,057.81	17,184.64	98,000.00					
5,024,705.04	18,380,444.12	2.60	.75	11.20	52,619.32	505,500.00	50,569.32	127,793.41	317,591.00					
1,726,697.56	10,742,621.75	2.35	.85	3.85	350.00	4,000.00	350.00	4,651.95	30,940.00					
1,195,343.28	10,023,071.51	2.35	.86	2.67	56,842.82	58,799.00	56,742.82	1,363.18	68,350.00					
1,307,105.92	13,215,326.97	2.28	.87	2.75	13,752.07	239,435.00	13,632.07	16,369.28	128,700.00					
861,203.64	796,546.08	2.87	.86	1.73	1,161.43	10,000.00	961.48	7,161.53	117,000.00					
1,415,884.93	12,276,751.92	2.54	.96	2.83	47,350.00	1,150,500.00	47,000.00	1,533.28	44,850.00					

\*Estimated. \*Buildings destroyed by fire, 2 brick, 34 frame; Buildings demolished, 2 brick, Cazenove St.; 5 brick, St. Charles St.; 3 brick, Berkeley St.; 1 brick, 3 frame, Broadway Extension; 9 brick, Way St.; 14 brick and 6 frame, Orange St. and Lane; 40 brick, Castle St.; 5 brick, 2 frame, South and Essex Sts.; 3 brick, 14 frame, Washington and Ziegler Sts.; 3 frame, Warren St.; Roxbury; total, 84 brick; 62 frame.

Total Loss thereon.	Total Insur-ance thereon.	Total Insur-ance Loss thereon.	Marine Fire Loss and Insurance.				Rents, Fire Loss and Ins.			
			Total Insur-ance thereon.	Total Loss thereon.	Total Insur-ance Loss thereon.	Loss Per Capita.	Total Insur-ance thereon.	Total Loss thereon.	Total Insur-ance thereon.	Total Insur-ance thereon.
\$1,511,674.51	\$10,447,876.87	\$1,388,877.43	\$1,388,877.43	\$1,208.12	\$1,208.12	\$3.37	\$3,000.00	\$1,208.12	\$5,325.31	\$56,100.00
846,395.12	8,481,051.58	731,918.78	731,918.78	25,037.81	25,037.81	1.89	58,057.57	25,037.81	17,184.04	98,000.00
5,024,765.04	18,380,444.12	4,662,091.64	4,662,091.64	52,619.32	52,619.32	11.20	505,500.00	50,569.32	127,793.41	317,591.00
1,726,637.56	10,742,631.75	1,306,821.42	1,306,821.42	330.00	330.00	3.85	4,000.00	350.00	4,651.95	30,940.00
1,195,343.28	10,023,071.51	1,074,478.14	1,074,478.14	56,842.82	56,842.82	2.67	58,739.00	56,712.82	1,363.18	68,350.00
1,367,165.92	13,215,820.97	1,263,934.19	1,263,934.19	13,752.07	13,752.07	2.75	239,405.00	13,652.07	16,366.28	128,700.00
861,903.64	12,234,947.33	796,546.08	796,546.08	1,161.48	1,161.48	1.73	10,000.00	961.48	7,161.53	117,000.00
1,415,881.33	12,276,751.32	1,329,065.50	1,329,065.50	47,350.00	47,350.00	2.83	1,150,500.00	47,000.00	1,533.28	44,850.00

†Estimated. \*Buildings destroyed by fire, 2 brick, 34 frame; Buildings demolished, 2 brick, Cazenove St.; 5 brick, St. Charles St.; 3 brick, Berkeley St.; 1 brick, 3 frame, Broadway Extension; 9 brick, Way St.; 14 brick and 6 frame, Orange St. and Lane; 40 brick, Castle St.; 5 brick, 2 frame, South and Essex Sts.; 3 brick, 14 frame, Washington and Ziegler Sts.; 3 frame, Warren St., Roxbury; total, 84 brick; 62 frame.



## MEDICAL EXAMINER'S REPORT.

---

SAMUEL ABBOTT, JR.

*Supt. Boston Protective Department.*

*Dear Sir :* The report of the Medical Office to the Department, for the year ending March 1, 1899, is herewith respectfully submitted.

Number of applications for appointment	.	.	.	.	19
Number of applications for promotion	.	.	.	.	21
Number of visits made to sick members	.	.	.	.	70
Number of visits made to injured members	.	.	.	.	44
Number of attending physicians' reports examined	.	.	.	.	71
Number of special reports	.	.	.	.	2
Number of certificates of health to return to duty	.	.	.	.	34

The work according to months is as follows :

Month.	Exam.	Sick	Injured.	Special	Rejections
March	3	2	1		
April	1	1	1		
May	9	3			
June	5	2	2		
July	6	2	1		
August		3			
September	3	1	2		1
October		1			
November	8	4	5	1	1
December	2	4	1		
January	3				1
February	3	2	2	1	

Of those who applied for promotion one was rejected in as much as his physical condition was found to be such that in all probability he would become disabled by the exposed life which he would be called upon to lead; of those who applied for membership only two were rejected; one found to be necessary on account of kidney disease; the other because of chronic heart disease.

On investigation the causes for sick leave were found to be as follows :

Sub acute rheumatism	.	.	.	.	.	.	.	1
La grippe	.	.	.	.	.	.	.	9
Coryza	.	.	.	.	.	.	.	1
Acute pharyngitis	.	.	.	.	.	.	.	2
Acute rhinitis	.	.	.	.	.	.	.	1

Sciatica . . . . .	1
Facial neuralgia . . . . .	1
Acute tonsillitis . . . . .	3
General debility and irregular heart . . . . .	1
Conjunctivites and ulcer of cornea . . . . .	1
Chronic cystitis . . . . .	1
Typhoid fever . . . . .	2
Gonorrhœ and epididymitis . . . . .	2

The causes for absence on account of injury were as follows:

Incised wound of finger . . . . .	1
Incised wound of hand . . . . .	1
Incised wound of foot . . . . .	1
Contusion of shoulder . . . . .	1
Contusion of abdomen . . . . .	2
Poisoned wound of foot . . . . .	1
Acute synovitis . . . . .	1
Lacerated wound . . . . .	2
Strain of knee . . . . .	1
Strain of ankle . . . . .	1
Frost bite . . . . .	1

In two cases when injured or sick members have applied to return to work the conditions have been such that it seemed best to postpone giving certificate of health.

#### SPECIAL REPORTS.

Two special reports were rendered in the case of T. R. Wills whose untimely death from typhoid fever has been noted.

In one case when an applicant for promotion had been postponed for six months it gave your medical officer great pleasure to report that the disability had disappeared and to be able to recommend the promotion.

The continued kindly feeling and courteous bearing of both officers and men towards your medical officer is gratefully acknowledged.

WM. F. TEMPLE, M. D.

*Medical Officer, Boston Protective Department.*



## EXHIBIT A.

Review of Districts where alarms were given, for eighteen years, from March 1st to March 1st, of each year.

YEARS.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	Total	Per Cent.
City Proper	-	-	347	362	349	360	412	464	440	487	504	681	626	595	652	663	788	772	9,075	52.29
Roxbury	-	285	63	70	65	82	87	79	74	70	106	117	120	161	178	174	209	191	1,948	11.21
South Boston	-	29	50	51	42	56	73	79	84	87	98	117	58	114	122	114	129	114	1,446	8.32
Charlestown	-	35	41	42	48	41	62	57	63	94	104	121	107	118	93	105	109	114	1,400	8.05
East Boston	-	45	51	44	47	51	67	51	61	51	57	63	75	76	73	68	68	103	1,099	6.32
Dorchester	-	25	27	38	39	26	30	31	31	61	54	60	60	118	81	84	92	100	1,011	5.81
West Roxbury	-	33	33	12	45	24	38	34	44	41	63	55	22	68	65	62	75	62	793	4.56
Brighton	-	13	5	16	32	21	27	23	18	28	24	28	121	26	28	41	46	46	561	3.22
Cambridge	-	2	1	2	1	1	1	1	1	1	1	1	1	1	3	1	1	1	10	
Chelsea	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	
Brookline	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	
Everett	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	1	1	1	2	
-Harbor	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1	1	3	
Hedge Park	-	-	-	-	-	1	-	-	1	1	1	-	-	-	1	-	1	1	3	.25
Milton	-	1	-	-	-	-	-	-	1	1	1	-	-	-	-	-	1	1	8	
Newton	-	-	-	1	-	-	-	-	1	1	2	-	-	-	-	-	-	-	1	
Somerville	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	
Watertown	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2	
Total Alarms	-	521	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1506	17,377	100

## EXHIBIT B.

Review of causes of alarms and fires, for eighteen years, from March 1st to March 1st, of each year.

CAUSES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	Total	Per Ct.
Ashes wooden receptacles hot	7	9	14	5	9	8	13	21	4	14	11	16	21	11	23	24	19	20	249	1.43
Buildings, defective	23	26	21	24	21	23	24	30	24	25	24	33	32	33	41	39	38	49	530	3.04
Causes not enumerated	102	81	117	96	129	98	136	122	151	233	308	285	255	263	249	210	230	244	3369	19.10
Combustion, spontaneous	17	34	30	18	13	23	29	32	21	34	34	56	39	37	38	50	36	39	673	3.29
Electricity	0	0	4	3	3	7	8	8	6	15	10	27	35	35	35	29	48	33	296	1.70
Fireworks	7	2	3	13	6	11	39	45	5	12	19	16	26	30	36	32	34	33	369	2.12
Gas	28	18	21	20	25	21	23	34	30	37	54	53	53	59	66	69	133	82	844	4.85
Incendiary supposed	48	35	64	57	46	63	44	37	48	22	40	61	32	59	41	59	42	37	825	4.74
Kerosene oil	36	39	46	65	85	69	75	87	120	90	109	138	172	134	125	167	193	202	1952	11.24
Matches	65	60	94	78	65	102	147	110	110	94	135	150	166	175	179	168	251	211	2360	13.60
Needles	53	57	66	72	47	59	79	94	46	36	75	74	101	101	155	175	149	195	1592	9.15
Overheating	26	27	26	42	40	39	39	45	40	61	63	58	60	69	81	68	92	67	943	5.42
Sparks	31	27	33	36	34	29	39	40	35	41	44	43	61	78	98	81	83	99	982	5.64
Unknown	65	78	85	94	123	90	107	111	121	188	116	145	140	129	88	117	128	136	2061	11.87
Vapors igniting	7	12	11	4	14	13	5	10	10	6	7	11	15	24	24	23	13	32	277	1.40
Water Pipes, attempt to thaw	6	5	13	21	9	7	11	8	1	4	5	35	15	21	28	9	19	31	248	1.42
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	17,377	100.

## EXHIBIT C.

Review of hours in day when alarms were received, for eighteen years, from March 1st to March 1st, of each year.

		Years.		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	Total	Per Ct.	
Day Service.	{	6 to 7 A.M.	7	10	11	10	11	17	17	16	10	12	16	22	33	28	27	18	27	34	326	3,306		
		7 " 8 " "	13	10	12	21	19	14	25	18	17	33	25	25	27	28	42	46	29	38	442			
		8 " 9 " "	14	18	20	22	31	22	21	23	37	34	26	32	41	31	44	44	53	61	574			
		9 " 10 " "	23	14	25	23	15	27	25	38	22	30	36	44	49	48	47	42	51	66	695			
		10 " 11 " "	15	24	24	26	34	23	32	26	26	43	36	51	66	48	66	54	67	61	722	19,54		
		11 " 12 noon	23	17	24	28	32	19	26	36	29	37	39	46	42	66	57	50	74	62	707			
		12 " 1 P.M.	27	24	29	22	29	27	30	33	27	36	36	40	62	61	73	50	63	73	742			
		1 " 2 " "	13	22	23	33	28	23	32	20	29	34	48	63	35	63	61	58	66	69	720			
		2 " 3 " "	18	18	38	27	29	21	35	36	28	38	51	48	42	57	59	69	72	71	757	4,920		
		3 " 4 " "	24	16	39	28	28	13	39	41	31	40	46	70	53	66	64	64	66	66	794			
		4 " 5 " "	23	22	31	34	28	8	45	45	42	56	50	87	67	62	81	55	66	72	874			
		5 " 6 " "	48	25	40	42	45	20	44	53	59	53	74	74	71	60	63	76	90	96	1033		28,32	
6 " 7 " "	43	39	46	37	44	49	35	55	55	58	64	90	80	80	83	95	111	92	1156					
7 " 8 " "	30	39	49	50	54	55	63	60	62	57	91	95	80	95	93	105	114	115	1307					
8 " 9 " "	39	35	45	45	42	42	58	58	67	91	82	88	100	96	78	78	110	127	1281					
Night Service.	{	9 " 10 " "	32	24	36	49	40	31	56	57	54	62	58	65	71	80	79	90	96	96	1076	6,431		
		10 " 11 " "	38	28	28	40	29	37	39	37	57	48	50	66	58	67	54	76	71	75	898			
		11 " 12 Md'n	17	23	31	17	23	26	45	35	42	37	29	50	42	53	52	60	85	46	713			
		12 " 1 A.M.	24	19	20	20	20	33	33	26	34	25	36	46	45	38	38	32	40	44	573		37,00	
		1 " 2 " "	15	23	23	15	27	30	24	32	29	30	25	45	26	35	30	46	47	32	534			
		2 " 3 " "	8	20	21	16	24	26	22	20	21	19	34	24	26	31	23	32	34	28	429			
		3 " 4 " "	7	17	13	16	12	35	18	29	18	22	23	27	35	30	29	29	37	37	434	2,630		
		4 " 5 " "	13	14	10	17	10	28	20	13	14	10	21	30	20	29	25	19	29	24	346			
		5 " 6 " "	7	9	10	10	15	36	14	12	10	17	19	14	18	24	28	22	29	20	315			
		Totals			521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527		1505	17,377

## EXHIBIT D.

Review of days of the week when alarms were received, for eighteen years, from March 1st to March 1st, of each year.

Days.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	Total	Per Ct.
Monday	83	65	88	93	85	109	139	113	98	111	130	180	143	179	191	188	253	244	2492	14.33
Tuesday	73	74	107	89	84	98	98	109	131	150	165	179	201	166	163	180	223	230	2520	14.50
Wednesday	76	87	101	98	102	95	113	130	118	122	155	187	199	227	186	188	228	229	2641	15.20
Thursday	65	52	84	90	98	87	131	115	115	147	136	202	171	198	192	147	204	185	2419	13.93
Friday	84	74	98	100	109	79	111	123	138	162	139	157	157	180	181	223	203	218	2536	14.59
Saturday	65	81	88	93	112	103	122	133	120	137	169	189	155	171	223	221	214	203	2599	14.96
Sunday	75	77	82	85	79	91	84	96	100	93	121	148	163	155	160	163	202	196	2170	12.49
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	17,377	100.

## EXHIBIT E.

Review of grade of losses for eighteen years, commencing January 1st and ending December 31st, of each year.

Years	Total Al'm	No Loss	Under \$100	\$100 to \$500	\$500 to \$1000	\$1000 to \$5000	\$5000 to \$10,000	\$10,000 to \$15,000	Over \$15,000	Total Fires with Loss	Average loss to Total fires with loss.
1881	558	214	156	84	32	47	11	7	7	344	\$1,357.86
1882	502	173	124	87	32	54	13	5	14	329	2,914.39
1883	641	270	124	109	30	64	14	14	16	371	3,053.86
1884	633	235	169	93	46	57	14	3	16	398	2,766.96
1885	655	258	167	98	41	62	11	4	14	397	3,103.91
1886	687	239	217	125	39	43	12	3	9	448	2,431.24
1887	754	294	197	115	51	65	16	6	10	460	1,500.98
1888	834	280	262	140	45	72	12	3	20	554	1,862.23
1889	788	294	220	137	46	54	20	5	12	494	9,756.84
1890	933	371	283	140	39	68	15	3	14	562	1,937.52
1891	1012	406	307	130	45	83	16	9	16	606	2,494.51
1892	1196	481	350	185	64	83	14	9	10	715	1,183.76
1893	1233	549	342	161	50	86	22	5	18	684	7,346.14
1894	1233	519	331	202	60	83	16	8	14	714	2,418.24
1895	1234	515	365	180	55	84	15	4	16	719	1,662.41
1896	1397	584	383	221	64	102	22	2	19	813	1,681.63
1897	1435	478	543	229	60	88	17	10	10	957	899.86
1898	1499	532	513	250	76	93	14	6	15	967	1,464.20
Totals	17,224	6692	5053	2686	875	1288	274	106	250	10,532	\$2,616.90
Per Ct.	100.	38.85	29.34	15.59	5.08	7.48	1.59	.61	1.46	61.15	



TWENTY-SIXTH  
ANNUAL REPORT

OF THE

*Boston Protective Department,*

From March 1, 1899, to March 1, 1900.



TWENTY-SIXTH  
ANNUAL REPORT

OF THE

Boston Protective Department,

From March 1, 1899, to March 1, 1900.

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## OFFICERS.

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*President :*

EUGENE E. PATRIDGE.

*Vice-President :*

GEO. A. EASTMAN.

*Secretary-Treasurer :*

EDWARD SPAULDING.

*Directors :*

TO SERVE UNTIL MARCH, 1900.

T. L. O'BRIEN.

E. E. PATRIDGE.

C. H. PORTER.

TO SERVE UNTIL MARCH, 1901.

B. B. WHITTEMORE.

W. H. ROGERS.

G. C. HOLT.

TO SERVE UNTIL MARCH, 1902.

GEORGE A. EASTMAN.

W. H. ELLISON.

RICHARD F. BARRETT.



Boston, March 14th, 1900.

TO THE MEMBERS OF THE BOSTON PROTECTIVE DEPARTMENT:—

The Directors submit herewith the 26th Annual Report of the Department, with the reports of the Superintendent, Secretary, Treasurer and Medical Officer, and the usual statistical tables.

The Board recommend, first, that the active duties of the Department be continued for another year; second, that the Directors be authorized to expend for the maintenance of the Department a sum not exceeding Seventy-five Thousand Dollars.

In explanation of the increase of the maximum sum to be expended, we call attention to the fact that House No. 3, which was completed and occupied August 1st last, has increased the expenses of the Department, necessitating the addition of Five Thousand Dollars to the appropriation.

We now have what is probably the best Protective Department House in the country and a lot of sufficient size to allow the House to be extended for Department Headquarters with a double Company, if the growth of the City should make it advisable, in the future, to establish the Headquarters of the Department in this vicinity.

The lease of this House, which has fifteen years to run from the 1st of August last, has a proviso allowing the Department to purchase the House at the cost price within ten years from the beginning of the lease.

The present Board have inaugurated a Sinking Fund to be made up of fees received for watch duty each year and recommend that the amount taken in any one year for this Fund shall not exceed One Thousand Dollars. This fund to be held separate from the other moneys of the Department and to be used for the purchase of House No. 3, when the time arrives to take advantage of the option above alluded to.

It can readily be seen that this course, if adhered to, will result in a great reduction in the running expenses of the Department, and we trust that our successors will see that this Fund is kept intact for the purpose for which it is intended and not used for current expenses.

Our charter gives us the power to hold real-estate for the uses of the Department, and the fees received from watch duty seemed to the Board the best available source from which to obtain the necessary Fund.

For the Directors,  
E. E. PATRIDGE,  
*President.*

TREASURER'S  
RECEIPTS AND EXPENDITURES OF THE BOSTON

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1899.		
March.	By Cash on hand, Balance . . . . .	\$ 5,216.26
	Balance of Assessment January 1, 1899 . . . . .	25,949.78
	Assessment of July 1, 1899 . . . . .	33,345.16
	Collected of Assessment January 1,* 1900 . . . . .	15,371.92
	Cash received for Watch Duty . . . . .	2,106.58
	Cash received for Interest . . . . .	245.71
	Cash received for Automatic Credit . . . . .	73.59
	Cash received from American Casualty Co. . . . .	21.90
	Cash received for Sewer Rebate . . . . .	15.06
	Cash received for Lost Tools and Old Material . . . . .	2.15
		<hr/>
		\$82,348.11
	*Balance uncollected . . . . .	\$19,940.48

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NET RUNNING EXPENSES.

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March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,922.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	28,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	42,706.85
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08
March, 1893, to March, 1894 . . . . .	58,655.41
March, 1894, to March, 1895 . . . . .	56,125.42
March, 1895, to March, 1896 . . . . .	61,423.48
March, 1896, to March, 1897 . . . . .	60,171.90
March, 1897, to March, 1898 . . . . .	60,767.10
March, 1898, to March, 1899, reserved for Equipment of House No. 3 .	\$3,000 and 64,875.01
March 1899 to March 1900, " " " " " " " " " "	1,269.31 and 67,719.57

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## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1900.

## To Cash paid:—

Pay-roll, Permanent force, Company No. 1 . . .	\$17,769.44
Auxiliary " " " . . .	4,400.25
Call " " " . . .	300.82
Permanent " " No. 2 . . .	15,578.75
Auxiliary " " " . . .	4,098.00
Call " " " . . .	260.31
Permanent " " No. 3 . . .	4,966.41
Call " " " . . .	343.60
Secretary, Treasurer and Office . . .	2,850.00
Medical Officer and Bills . . .	532.00
Rent and Taxes of Houses . . .	6,640.10
Hay and Grain . . .	1,421.67
Wagon and Harness Repairs . . .	695.06
Horse shoeing . . .	508.06
Fuel . . .	708.99
Gas . . .	460.60
Washing . . .	397.91
Supplies . . .	494.94
New England Telephone and Telegraph Co. . .	962.70
Automatic Fire Alarm and Electric Apparatus . . .	101.70
Water Tax . . .	158.70
Repairs and Furnishing of Houses . . .	342.48
Veterinary Services . . .	240.51
Sundries . . .	410.82
Directors' and Committee Meetings . . .	118.00
Printing and Stationery . . .	2,284.58
Advertising Annual Meeting . . .	53.80
Auditors' Fees . . .	90.00
Surety Bond . . .	40.00
Employers' Liability . . .	407.37
Horse Hire . . .	73.00
House No. 3, Equipment Additional . . .	\$67,719.57
Watch Duty Paid . . .	1,269.31
Assessments Remitted . . .	1,193.15
Suspense Account Overdue Assessments . . .	8.66
Sinking Fund For Building Purchase . . .	163.01
Sinking Fund For Building Purchase . . .	1,000.00
Balance, Cash on Hand . . .	10,994.41
	<u>\$82,348.11</u>

E. &amp; O. E.

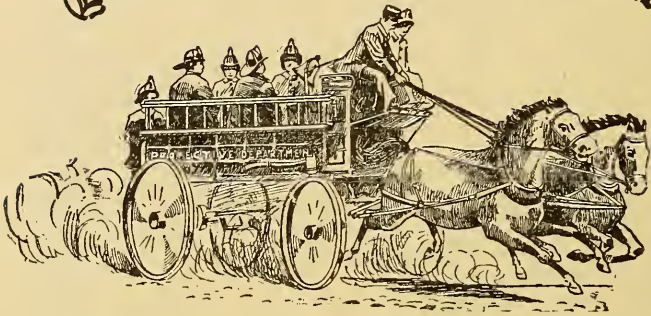
EDWARD SPAULDING, *Treasurer.*

BOSTON, March, 9, 1900.

Audited and found correct to date.

EDWARD D. BLAKE,	} <i>Auditing Committee.</i>
FRED K. W. PORTER,	
JOHN H. EDDY,	

# Boston Protective Department.



## SUPERINTENDENT'S REPORT.

HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT. NO. 40 PURCHASE ST., }

BOSTON, March 1st, 1900.

TO THE PRESIDENT AND BOARD OF DIRECTORS:

*Gentlemen:* In compliance with Article IV, of By-Laws of the corporation of the Boston Protective Department, authorized by an Act entitled "An act to incorporate the Boston Protective Department," passed March 9, 1874, amended February 4, 1879, I herewith submit the Twenty-sixth Annual Report of operations of the Department for the year 1899, ending March 1, 1900.

The several tables of statistics heretofore submitted, have been extended to include the period above mentioned. (See Secretary's Report and Exhibits.)

### ORGANIZATION.

The organization of the Department has been increased by the addition of Company No. 3, in place of permanent men located with Truck Companies Nos. 4, 7, 10 and 12 of the Boston Fire Department.



Company No. 3 was organized August 3, 1899.

*Superintendent*, SAMUEL ABBOTT, JR.

*Secretary-Treasurer*, EDWARD SPAULDING.

*Medical Officer*, DR. WM. F. TEMPLE.

Co. No. 1. 40 Purchase St.	Total	Co. No. 2. 4 Appleton St.	Total	Co. No. 3. Roxbury, cor. Gay Sts.	Total	Grand Total
Captains, James H. Huff.....	1	Daniel W. Brown .....	1	Henry E. Thompson....	1	3
1st. Lieuts., John J. McCarthy	1	Vacant .....	0	James T. Fitzgerald..	1	2
2d. Lieuts., James H. Ryan....	1	Geo. W. Thompson .....	2	None .....	0	3
		Samuel A. McDonnell. }				
First Grade Privates .....	2		4		1	7
Second " .....	3		1		0	4
Third " .....	4		5		2	11
Fourth " .....	1		0		3	4
Auxiliary " .....	9		9		0	18
Call " .....	1		0		3	4
Clerk .....	1		0		0	1
Janitor and Messenger .....	0		0		1	1
Totals	24		22		12	58

#### BUILDINGS, ALARMS, FIRES, INSURANCE AND LOSS FOR 1900.

On January 1, 1899 there were 24,899 brick, stone, iron, and 54,954 frame buildings in the City of Boston, making a total of 79,853 buildings; during the year there were 317\* brick, stone, iron, and 990\* frame buildings completed. 1 brick and 53 frame buildings were totally destroyed by fire, 15 brick and 152 frame buildings were demolished in various parts of the city, making the total number of buildings at the end of the year 25,200 brick, stone, iron, and 55,739 frame; grand total 80,939 buildings.

The total alarms during the year 1899 (January 1st to December 31st inclusive) were 1,768 of which 1,568 were for fires; of these 748 occurred in brick, stone and iron buildings, 646 in frame buildings and 174 outside; the number of fires to 1,000 population were 3.12.

Of these fires 1162 were confined to the floor where they originated, 1328 to the building or place where they originated, 48 extended to adjoining property, and 18 extended beyond adjoining property; the per cent. of fires confined to building where they originated was 95.

The total loss on buildings and contents was \$1,699,900.57, total

\*By courtesy of Inspection of Building Department City of Boston.

insurance, \$19,471,668.36 and the total insurance loss was \$1,500,963.84 the above was divided as follows:—

Total loss on buildings . . . . .	\$635,941.88
Total insurance loss on buildings . . . . .	590,745.17
Total insurance on buildings . . . . .	12,021,964.00
Per cent of total loss not insured on buildings . . . . .	7.11
Total loss on contents . . . . .	1,063,958.66
Total insurance loss on contents . . . . .	910,218.67
Total insurance on contents . . . . .	7,449,704.35
Per cent of total loss, not insured, on contents . . . . .	14.45

The loss per capita was \$3.40 which does not include the Marine, Fire and Rent losses.

The total Rent loss was \$19,259.28 and the total insurance thereon was \$99,800.

The per cent of grade of alarms and losses for 1899 were as follows:—

37.32	had no loss.
32.29	the loss was under \$100.
15.72	“ “ “ from \$100 to \$500.
5.14	“ “ “ “ \$500 to \$1,000
6.44	“ “ “ “ \$1,000 to \$5,000.
1.18	“ “ “ “ \$5,000 to \$10,000.
.45	“ “ “ “ \$10,000 to \$15,000.
1.46	“ “ “ over \$15,000.

100

THE OPERATIONS OF THE DEPARTMENT FOR THE YEAR  
ENDING March 1st, 1900, ARE AS FOLLOWS:—

		Co. No. 1.	Co. No. 2.	†Co. No. 3.
Alarms.	{ Bell . . . . .	560	830	253
	{ Still . . . . .	73	94	11
	{ Automatic . . . . .	64	31	4
Responded to by	{ Wagon . . . . .	569	688	227
	{ Callmen . . . . .	194	419	53
Total alarms.		697	955	268
Hours Duty.	{ At fires . . . . .	632.57	850.32	299.38
	{ After fires protecting goods . . . . .	357.02	84.26	9.08
	{ Watch . . . . .	2,964.04	5,031.25	242.13
	{ Total . . . . .	3,954.03	5,966.23	550.59
Covers Used.	{ On goods . . . . .	2,037	1,560	189
	{ “ protecting from storms . . . . .	75	0	0
	{ On roofs . . . . .	112	134	30
	{ Total . . . . .	2,224	1,694	219
Extinguishers used . . . . .		7	31	11

†Company No. 3 was organized and commenced duty at 10 o'clock A. M., August 3, 1899.

*Second Section (in section) Called in Service.*

First Alarm	{	When 1st out section was at fire	13	30	9
		When all other sections were at fire	0	1	0
		When covering a company district	2	4	7
Second Alarms	{	2d Alarms	21	21	7
		With 2d section wagon during day time	2	1	0
Telephone calls	.	.	6	7	6
Messenger calls	.	.	0	2	0
Covering	{	When both sections of a company were at fire	14	27	19
Auxiliary Force retained on day duty after a fire			12	0	0
"	"	" " " " extra hazardous days	2	1	0
Protecting roofs	.	.	1	0	0
Totals	.	.	73	103	48

The total number of alarms and fires was 1793 it being 288 more than last year.

There were 1,695<sup>14</sup>/<sub>100</sub> hours' fire service, 8,237<sup>38</sup>/<sub>100</sub> hours' watch duty and 450<sup>36</sup>/<sub>100</sub> hours' service, protecting buildings and contents from storms equivalent to 1,038 days of 10 hours each, it being 400 days more in comparison with the previous year. There were 3,786 covers used in covering goods at fires, 75 on goods and 276 on roofs, protecting the buildings and contents after fires from additional damage by storms; which makes a total of 4,137 covers used; representing 893,592 square feet, it being 273,888 square feet more than was spread last year.

Review of alarms and fires for nineteen years, from 1881 to 1899 inclusive; commencing March 1st, and ending the last day of February of each year.	{	In City Districts,	Exhibit A.	Page 30
		Causes,	" B.	" 31
		Hours of the Day, { 65 per cent of alarms and fires have occurred between the hours of 12 o'clock noon and 12 o'clock midnight. }	" C.	" 32
		Days of the Week,	" D.	" 32
		Insurance and loss on buildings and contents,	"	19
Review of losses on buildings and contents for nineteen years from 1881 to 1899 inclusive, commencing January 1 and ending December 31st of each year.	{	Insurance and Loss, { 12.64 per cent of total loss on buildings and contents was not insured. }	"	26
		Grade of Losses, { 61.29 per cent of all alarms were for fires with a loss; the average loss for each fire was \$2,513.84. }	Exhibit E.	Page 32

### SPRINKLERS.

The following are operations of the department in buildings equipped with the sprinkler system, for the year ending March 1, 1900.

Date.	Street.	Duty Performed	Covers Spread.	Sprinkler Heads replaced.	Loss.		Cause.
		H. M.			Building.	Contents.	
Mar. 3, 1899	106 Broad,	.15	0	0	None	None	Letting on water in sprinkler system.
" 15, "	291 Congress.	2.03	19	0	None	\$185.00	Naphtha vapor igniting from a gas-jet.
" 29, "	29 63 Wareham,	3.35	0	1	\$720.00	60.00	Fire operated sprinkler head.
May 4, "	174 Portland,	4.20	0	1	117.46	None	Fire operated sprinkler head.
June 6, "	57 Essex,	.19	0	0	None	None	Leaky sprinkler head.
" 30, "	285 Congress,	.38	0	1	None	None	Accidentally striking sprinkler with stick of timber.
July 21, "	277 Congress,	.38	1	1	None	None	Accidentally striking sprinkler head with a plank.
" 28, "	277 Congress,	.43	0	1	None	None	Sprinkler leak.
Sept. 18, "	303 Congress,	3.07	13	2	None	762.93	Fire operated sprinkler head.
" 28, "	High and Purchase	.45	0	0	None	None	Accidentally striking sprinkler head.
Nov. 21, "	285 Congress,	1.04	0	1	None	None	Iron drum struck sprinkler head.
Dec. 2, "	55-7 Tremont,	1.32	9	3	None	644.85	Fire operated sprinkler head.
" 5, "	700 Harrison Ave.	1.33	10	0	None	162.00	Fire operated sprinkler head.
" 16, "	352 Washington,	.40	0	1	None	None	Sprinkler break or leak.
" 16, "	31 Hawley,	.23	0	1	None	None	Sprinkler break.
" 21, "	279 Congress,	.34	0	1	None	50.00	Shoe case striking sprinkler head.
" 22, "	275 Congress,	.42	0	1	None	None	Workman striking sprinkler head.
" 23, "	94-100 Portland,	.55	0	0	None	57.00	Excessive heat from steam pipe
" 27, "	558-60 Washington,	.40	0	0	None	None	Workman tampering with sprinkler head.
" 29, "	31 Hawley,	.17	0	1	None	None	Workman striking sprinkler head.
Jan. 1, 1900	277 Congress,	.24	0	1	None	None	Bursting of sprinkler pipe.
" 1, "	67-71 Essex,	.44	0	1	None	180.00	Leaky sprinkler.
" 26, "	83-5 South,	1.10	0	0	None	12.80	Leaking while testing pipes.
" 26, "	558 Washington,	1.13	0	1	None	None	Unknown.
" 27, "	558 Washington,	1.15	0	0	None	None	Repairing sprinkler pipe.
Feb. 10, "	291 Congress,	.46	1	1	None	None	Leak in sprinkler pipe.
" 12, "	181 Essex,	.35	0	1	None	None	Leakage through blow hole.
" 15, "	275 Congress,	.17	0	1	None	None	Workman accidentally breaking sprinkler.
" 23, "	120 Fulton,	.20	0	1	None	None	Accidental breaking of sprinkler head.
" 28, "	89 Broad,	.46	0	1	None	None	Frozen sprinkler head.

In conclusion, I desire to express my sincere thanks to all departments or persons who have in any way assisted this Department during the past year.

Respectfully submitted,

SAMUEL ABBOTT, JR.

*Superintendent.*

## SCHEDULE OF PROPERTY.

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES ONE, TWO  
AND THREE AND IN THE OUTLYING DISTRICTS.

---

Horses . . . . .	14
Wagons large "complete" . . . . .	5
Wagon small "complete" . . . . .	1
Wagon large "spare" . . . . .	1
Wagon supply . . . . .	1
Pungs "complete" . . . . .	3
Wagons for Superintendent . . . . .	2
Sleighs " " . . . . .	2
Rubber covers "stock" . . . . .	597
Rubber covers, roof . . . . .	18
Canvas covers for roofs . . . . .	4
Fire extinguishers . . . . .	11
Life saving blankets . . . . .	6
Sets of patent double harnesses . . . . .	6
Single harnesses . . . . .	2
Lead reins, 4 horse . . . . .	5
Wagon poles "extra" . . . . .	3
Wheels "extra" . . . . .	4
Whiffletrees "extra" . . . . .	5
Lead bars, 4 horse . . . . .	5
Bedsteads with bedding . . . . .	54
Billiard table "complete" . . . . .	1
Fire hats . . . . .	51
Necessary tools and equipments.	
" stable equipments.	
" extra parts of harnesses.	
" house furniture and fixtures.	
" telegraph apparatus.	
" gas fixtures.	
" supplies.	
" stationery.	

For detailed statement, see Quarterly Report at Superintendent's Headquarters.



Duty performed by Company No. 1, from March 1, 1899, to March 1, 1900.

Months.	Alarms responded to.							Hours on duty.				Covers spread.				Second Section of Company calls.																		
	Box.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	Watching after Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	2d Alarms.		Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous, days.	Protecting Roofs.	Totals.			
																				1st Alarms.	2d Al's.													
March, 1899	38	5	4	43	12	47	2	69.47	71.03	414.09	554.59	280	3	8	291	1	1	1	1	1	6	1	1	1	1	1	1	1	1	1	1	9		
April, "	54	7	5	57	13	66	-	66.23	49.06	275.07	390.36	367	2	31	400	1	2	2	2	2	3	2	2	3	2	2	2	3	3	3	14			
May, "	48	4	5	48	22	57	1	51.55	2.51	67.30	122.16	91	2	2	93	2	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	10		
June, "	69	9	3	68	26	81	1	62.28	67.07	161.08	290.43	177	24	22	223	24	223	108	2	2	3	3	3	1	1	2	2	1	1	1	7			
July, "	67	5	3	55	24	75	2	61.05	29.52	96.54	187.51	108	22	14	204	22	204	68	2	2	1	1	1	1	2	2	2	2	2	2	1	1		
Aug., "	35	7	5	33	15	47	-	36.26	4.00	266.40	307.06	68	2	2	70	2	70	69	7	7	1	1	1	1	2	2	2	2	2	2	3	3		
Sept., "	41	7	6	42	16	54	1	52.32	9.41	432.10	494.23	69	7	7	76	7	76	69	7	7	4	4	4	1	1	1	1	1	1	1	1	4	4	
Oct., "	30	4	3	30	11	37	-	16.32		24.00	40.32	6	6	6	6	6	6	4	4	4	1	1	1	1	1	1	1	1	1	1	1	5		
Nov., "	41	2	4	37	16	47	1	49.06	57.51	419.38	526.35	249	9	9	258	9	258	249	2	2	1	1	1	1	1	1	1	1	1	1	1	2	2	
Dec., "	49	4	9	49	14	62	7	45.30	17.20	418.15	481.05	136	12	12	148	12	148	136	2	2	1	1	1	1	1	1	1	1	1	1	1	3	3	
Jan., 1900	52	9	9	61	13	70	3	61.79	8.12	283.40	357.11	145	5	5	150	5	150	145	2	2	2	1	1	1	1	1	1	1	1	1	1	1	3	3
Feb., "	36	10	8	46	12	54	5	55.51	39.59	104.53	200.46	281	24	24	305	24	305	281	2	2	2	3	3	3	3	3	3	3	3	3	3	1	13	
Totals	560	73	64	569	194	697	23	632.57	357.02	2964.01	3954.03	2037	112	75	2224	75	2224	2037	112	7	13	2	21	2	6	14	14	12	2	2	1	73		

Duty performed by Company No. 2, from March 1, 1899, to March 1, 1900.

Months.	Alarms responded to.				Hours on duty.			Covers spread.				Second section of Company calls.										Totals.												
	Box.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	Watching after Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	1st Alarms.						2d Alarms.					Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during day time.	Auxiliary Force on duty extra hazardous days.	Protecting Roofs.
																	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.													
March, 1899	62	9	2	46	41	73	1	H. M. 88.39	H. M. 8.14	H. M. 1,269.25	H. M. 1366.18	180	17			206	1	2	1	2	1	2	1	1					1			7		
April, "	110	10	2	74	76	122		117.16	28.02	1063.30	1208.48	254	15			269	3	1		5	5	1	1					3			11			
May, "	99	9	2	67	70	110		93.09	4.15	966.50	1064.14	98	11			109	1			1	1	2	1								1			
June, "	100	20	4	76	71	124	1	111.32	9.08	609.21	730.01	145	14			159	5	5	1	2	2	1	1					1			13			
July, "	132	16	1	81	105	149		107.30	1.—	355.06	483.36	85	8			93	3	11		4	4							1			17			
Aug., "	43	4	1	44	11	48		40.31	3.00	61.55	105.26	52	6			58	2	1		1			2	1				1			5			
Sept., "	33	3	3	33	6	39		30.10	4.50	70.20	105.28	143	4			147	1											1			3			
Oct., "	38	3	5	44	7	46		21.39	3.00	13.15	37.54	23	11			34	9	1													3			
Nov., "	41	4	3	43	7	48		51.29	5.00	76.56	133.25	182	9			191		3					1								6			
Dec., "	55	5	2	58	7	62	2	67.00	6.22	164.10	237.32	107	12			119	2	2		2											10			
Jan., 1900	66	6	5	74	9	77	2	64.37	10.35	163.59	239.11	132	21			153	4	4					1								10			
Feb., "	51	5	1	48	9	57	1	57.00	1.00	216.30	274.30	150	6			156				4	1							2			17			
Totals.	830	94	31	688	419	955	7	850.32	84.26	5031.25	6366.23	1560	134			1694	31	30	1	4	21	1	7	2	27	9	1				103			



## Duty performed by Company No. 3, from March 1, 1899, to March 1, 1900.

Alarms responded to.										Hours on Duty.			Covers Spread.			Second Section of Company calls.										Totals.									
Months.	Box.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fire.	H. M.	Extra at Fires.	H. M.	Watching after Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	COVERING										Totals.						
																			When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	When both sections of a co are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.		Auxiliary Force on duty extra hazardous days.	Protecting Roofs.				
March, 1899									H. M.	H. M.	H. M.																								
April,																																			
May,										2.43																									
June,												10.30	53.43																						
July,												73.35	120.06																						
Aug.,	32		1	27	9	33		33.53				38.58	72.51		9	2								2										6	
Sept.,	28		1	27	3	29		24.48		2.43			27.31		34	3								1			2								3
Oct.,	31	3		26	9	34		43.13					53.43		14	2																			3
Nov.,	41		1	38	6	42		46.31					73.35		25	2																			8
Dec.,	42	1		37	6	43		57.27					72.09		34	4																			8
Jan., 1900	32	5		28	10	37		34.19		2.00			38.38		16	4																			9
Feb.,	47	2	1	44	10	50		50.27		4.25			65.50		47	13																			11
Totals	253	11	4	227	53	263		299.38		9.08			242.13		180	30																			48

OFFICE OF SECRETARY-TREASURER,  
40 PURCHASE STREET,  
BOSTON, MARCH 1, 1900.

TO THE PRESIDENT AND DIRECTORS:

*Gentlemen.* — The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1899, to Dec. 31, inclusive, is as follows:

Insurance on buildings . . . . .	\$12,021,964.00
Loss on buildings . . . . .	590,745 17
Insurance on contents . . . . .	7,449,704.35
Loss on contents . . . . .	910,218.67
Insurance on marine risks . . . . .	
Loss on marine risks . . . . .	
Insurance on rents . . . . .	99,800.00
Loss on rents . . . . . Partially settled	19,259.28
Sprinkler insurance . . . . .	64,000.00
Sprinkler loss . . . . . Partially settled	2,259.25

CAUSES OF FIRES AND ALARMS.

MARCH 1, 1899, TO FEB. 28, 1900, INCLUSIVE.

Ashes in wooden receptacles, hot . . . . .	20
Buildings, defective . . . . .	42
Causes not otherwise enumerated . . . . .	390
Combustion spontaneous . . . . .	63
Electricity . . . . .	36
Fireworks . . . . .	55
Gas . . . . .	72
Incendiary (supposed) . . . . .	39
Kerosene oil . . . . .	192
Matches . . . . .	287
Needless . . . . .	168
Overheating . . . . .	86
Sparks . . . . .	133
Unknown . . . . .	186
Vapors igniting . . . . .	10
Water pipes attempt to thaw . . . . .	14

1,793

## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March, 1, 1900.

Months	Alarms.							Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by occet.	Total.	Sprinklers operated on fires.	Sprinkler breaks and leaks.	Covers.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra covers.
March, 1899	77	33	6	7	123	1	1	469	20	1	109	53	1683	34	79	17	8
April, "	133	33	7	1	174			621	17	4	147	02	1338	37	77	8	31
May, "	126	31	6	3	166	1		189	13	1	124	01	1034	20	7	6	..
June, "	139	36	6	1	182	..		322	38	5	153	22	770	29	76	15	22
July, "	170	35	5	3	213		2	253	30	3	145	00	451	60	30	52	14
August, "	89	28	5		122			129	10	2	87	14	367	33	7	00	..
Sept., "	82	20	8		110	1	1	246	14	3	83	56	502	38	17	14	..
Oct., "	83	19	8	3	113			43	13	11	77	10	47	45	3	00	..
Nov., "	92	19	9	5	125	..	1	466	20	3	103	53	570	09	62	51	..
Dec., "	111	25	6	3	145	2	7	277	28	3	135	35	597	07	23	42	..
Jan., 1900	115	43	11	13	182	..	5	293	30	9	140	58	486	17	20	47	..
Feb., "	101	27	9	1	138		6	478	43	4	387	10	387	10	45	24	..
	1318	349	86	40	1793	5	25	3786	276	49	1695	14	8237	39	450	36	75

and 25 were sprinkler breaks.

Comparison of Fires, Covers Spread, Fire and Watch Duty performed for twenty years, each year commencing March 1. and ending the last day of February

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1,015	2,683	820	05	2,611	30
1892	1,242	2,722	1,061	00	5,554	30
1893	1,189	3,455	1,155	45	5,179	15
1894	1,276	2,730	967	40	5,686	
1895	1,296	2,462	997	45	4,964	45
1896	1,310	2,712	1,075	36	3,557	39
1897	1,527	2,551	1,097	03	5,047	38
1898	1,505	2,616	1,193	48	4,976	43
1899	1,793	3,786	1,695	14	8,237	39

# MONTHLY STATEMENT

Of Insurance and Loss on Buildings, Contents, Rents, and Marine, for the year ending March 1, 1900.

Months.	Buildings.			Contents.			Losses not Insured.		Total.			Rents.			Marine.			Loss.
	Insurance.	Loss.	Insurance.	Insurance.	Loss.	Buildings.	Contents.	Insurance.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	
March, '99	\$1,064,075.00	\$ 70,144.94	\$ 566,250.00			\$ 257.07	\$ 30,648.17	\$ 1,730,325.00		\$260,056.32	\$3,000.00	\$6,216.66						
April,	1,012,246.00	136,311.48	1,300,303.75			188,848.08	23,178.94	2,372,549.75		360,332.60	8,000.00	90.00						
May,	1,118,870.00	32,035.04	3,967.50			33,931.30	6,144.82	1,400,070.00		75,961.66	1,800.00	46.00						
June,	926,569.00	65,465.12	1,336,029.35			10,805.00	11,735.90	2,462,598.95		154,918.20	9,000.00	6,554.59						
July,	1,121,233.00	49,336.40	433,163.00			5,827.00	3,799.83	1,500,386.00		160,583.70								
Aug.,	515,280.00	37,446.23	607,500.00			817.05	3,795.00	1,082,780.00		92,858.18	2,000.00	175.00						
Sept.,	366,309.00	17,869.22	240,900.00			13,968.71	8,074.78	607,200.00		39,012.71								
Oct.,	383,645.00	18,064.36	112,204.00			295.00	139.00	402,849.00		29,004.58	1,500.00	65.00						
Nov.,	1,173,472.00	49,993.29	244,469.88			2,135.00	24,688.92	1,417,941.88		136,287.00	6,500.00	25.00						
Dec.,	859,731.00	50,046.04	1,639,589.00			8,972.00	27,888.47	1,800,325.00		193,509.54	23,000.00	1,475.00						
Jan., 1900	1,137,000.00	* 36,343.96	291,703.00			965.00	3,463.63	1,413,703.00		88,581.05	34,250.00	543.00						
Feb.,	579,673.00	* 45,111.55	1,057,800.00			140.00	761.00	1,027,473.00		115,711.74								
	\$10,338,007.00	\$608,733.23	\$7,707,102.58			\$45,763.71	\$145,847.48	\$18,074,199.58		\$1,706,406.57	\$ 119,050.00	\$18,465.25						\$119.80

\*Unsettled losses are estimated.

†Partially settled.

## Comparison of Insurance and Losses for Nineteen Years, each year commencing March 1st, and ending the last day of February.

Year.	Insurance.	Total Loss.	Loss not insured.
1880	\$6,009,756.00	\$1,056,468.00	
1881	3,801,564.11	551,058.82	\$ 56,197.83
1882	5,209,049.83	940,073.69	172,401.59
1883	6,972,141.29	1,100,381.81	163,160.05
1884	6,533,012.24	1,256,944.74	123,389.95
1885	6,371,291.77	1,167,835.28	148,422.58
1886	4,491,491.11	905,080.68	281,344.66
1887	6,440,032.21	734,737.21	150,187.90
1888	7,490,430.52	1,080,217.96	112,338.37
1889	13,014,984.37	5,078,142.18	814,056.39
1890	7,730,043.60	787,577.27	57,404.05
1891	10,109,612.58	1,582,932.14	128,258.03
1892	10,977,922.67	2,293,235.98	150,096.59
1893	16,024,654.12	3,953,121.69	400,136.09
1894	10,694,969.25	1,434,266.25	226,382.22
1895	10,615,072.81	1,294,274.32	117,358.42
1896	12,606,268.17	1,203,533.26	80,285.86
1897	12,356,417.02	990,922.34	76,253.80
1898	14,102,311.34	1,445,434.37	70,682.51
1899	18,075,199.58	1,706,906.57	191,611.19





## CLASSIFICATION OF COVERS SPREAD.

75 Fires of 1 Cover each . . . 75	1 Fires of 29 Covers each . . . 29
35 " " 2 Covers " . . . 70	1 " " 30 " " . . . 30
37 " " 3 " " . . . 111	1 " " 31 " " . . . 31
17 " " 4 " " . . . 68	2 " " 34 " " . . . 68
20 " " 5 " " . . . 100	1 " " 35 " " . . . 35
15 " " 6 " " . . . 90	1 " " 36 " " . . . 36
17 " " 7 " " . . . 119	1 " " 37 " " . . . 37
8 " " 8 " " . . . 64	1 " " 38 " " . . . 38
8 " " 9 " " . . . 72	1 " " 46 " " . . . 46
9 " " 10 " " . . . 90	1 " " 51 " " . . . 51
7 " " 11 " " . . . 77	1 " " 54 " " . . . 54
3 " " 12 " " . . . 36	1 " " 61 " " . . . 61
6 " " 13 " " . . . 78	1 " " 62 " " . . . 62
5 " " 14 " " . . . 70	1 " " 69 " " . . . 69
2 " " 15 " " . . . 30	1 " " 71 " " . . . 71
2 " " 16 " " . . . 32	1 " " 73 " " . . . 73
5 " " 17 " " . . . 85	1 " " 75 " " . . . 75
3 " " 18 " " . . . 54	1 " " 78 " " . . . 78
1 " " 19 " " . . . 19	1 " " 80 " " . . . 80
3 " " 20 " " . . . 60	1 " " 91 " " . . . 91
1 " " 21 " " . . . 21	1 " " 124 " " . . . 124
1 " " 22 " " . . . 22	1 " " 127 " " . . . 127
1 " " 23 " " . . . 23	1 " " 165 " " . . . 165
5 " " 24 " " . . . 120	1 " " 168 " " . . . 168
1 " " 25 " " . . . 25	1 " " 206 " " . . . 206
1 " " 26 " " . . . 26	1 " " 217 " " . . . 217
1 " " 27 " " . . . 27	
Total fires . . . . . 312	Total covers . . . 3786

312 Fires, 3786 Covers. Averages,  $12\frac{1}{100}$ .

## COVERS.

## STOCK COVERS.

On hand last report . . . . .	617
Condemned . . . . .	20
Total stock covers . . . . .	597

## ROOF COVERS.

On hand last report . . . . .	22
Condemned . . . . .	4
Total roof covers . . . . .	18

Total covers on hand March 1, 1900 . . . . . 615

## GRADE OF LOSSES.

Grade of Losses for the year 1899, commencing January 1st, and ending December 31st.

	Fires with no loss.	Aggregate.	Average.
660	Fires with no loss.		
571	" " loss under \$100 . . . . .	\$20,354.08	\$ 35.65
278	" " " from \$100 to \$500 . . . . .	64,468.05	231.81
91	" " " " \$500 to \$1,000 . . . . .	63,967.76	702.94
114	" " " " \$1,000 to \$5,000 . . . . .	241,002.83	2,114.06
21	" " " " \$5,000 to \$10,000 . . . . .	152,669.73	7,270.00
8	" " " " \$10,000 to \$15,000 . . . . .	97,291.96	12,161.49
	Over \$15,000 as follows:		
1	Fire Jan. 4, 119 Summer St., Hub Mfg. Co. & others . .	35,511.07	\$1,060,146.16
1	" Feb. 10, Cow Pasture, N. E. Sanitary Co. & others .	34,119.82	
1	" Mar. 8, 55 Charlestown St., Geo. Brown & Bro. & others	34,622.27	
1	" " 15, 552 Washington St., John G. Small & Co. . .	15,853.64	
1	" " 24, 15 Kingston St., Joseph A. Ryan & Co. . .	25,709.32	
1	" " 24, 27 Eliot St., Henry M. Sanders & Co., & others	19,688.38	
1	" " 27, 93 Federal St., Boston Mailing Co. & others	109,711.96	
1	" " 29, 61 Wareham St., Chase Refrigerator Co. & others	22,064.70	
1	" Apr. 13, 18 Tremont St., Boston Museum & others . .	54,092.29	
1	" " 19, 18 Summer St., Mark W. Cross & Co., & others	27,411.21	
1	" " 29, 139 High St., Peters & Son & others . . . .	62,151.37	
1	" " 30, 240 Dover St., Elec. Gas Lighting Co., & others	143,110.77	
1	" June 20, 1209 Tremont St., Rudd & Hastings & others	15,034.32	
1	" " 25, 148 Purchase St., Boston Book Binding Co. & others	67,724.14	
1	" " 30, Bay State Wharf, Frank L. Young & Kimball & others	18,611.46	
1	" July 5, 12 Milk St., Thorpe, Martin & Co., & others .	30,823.55	
1	" " 5, 38 Wareham St., Library Bureau & others . .	43,066.85	
1	" " 6, 67 Sudbury St., Henry Traster & others . . .	19,900.20	
1	" Aug. 13, K St., and East 1st., Boston Fire Brick & Clay Retort Mfg. Co. . . . .	26,630.86	
1	" " 30, 15 High St., M. L. Hiller & Sons & others . .	24,347.00	
1	" Nov. 21, Cor. Sudbury & Portland Sts., S. H. Davis & Co., & others . . . . .	66,314.82	
1	" " 25, Navy Yard . . . . .	22,000.00	
1	" Dec. 10, 374 Albany St., A. F. Leatherbee & others .	79,055.31	
1	" " 20, 24 Commerce St., M. F. Quimby & Co., & others	40,876.10	
1	" " 27, Western Ave., Harvard Athletic Assn. . . .	21,714.75	
1768		\$1,699,900.57	42,405.84

The 1108 fires where there was a loss, the average was \$1,534.20.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for nineteen years, commencing January 1, 1881

Year.	Total Fires.	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average Loss of Total Fires with Loss.
1881	558	344	\$ 467,105.82	\$ 837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4,819,446.67	6,103.15	9,756.84
1890	933	562	1,088,887.29	1,167.08	1,937.52
1891	1,012	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	715	846,395.12	708.70	1,183.76
1893	1,233	684	5,024,765.04	2,654.39	7,346.14
1894	1,233	714	1,726,627.56	1,400.35	2,418.24
1895	1,234	719	1,195,343.28	968.62	1,662.41
1896	1,397	813	1,367,165.92	978.64	1,681.63
1897	1,435	957	861,203.64	600.15	899.86
1898	1,499	967	1,415,884.93	944.55	1,464.20
1899	1,768	1108	1,699,900.57	961.43	1,534.20
Total	18,992	11,640	\$29,261,053.94	\$1,540.70	\$2,513.84



## CAUSES OF ALARMS AND FIRES.

(March 1, 1899, to March 1, 1900.)

Alarms, false . . . . .	36
Alarms needless . . . . .	132
Ashes hot . . . . .	16
Ashes hot in wooden receptacles . . . . .	4
Attempt to thaw water pipes . . . . .	14
Assistance called for . . . . .	4
Back draft . . . . .	1
Burning paper . . . . .	3
Boiling over of fat . . . . .	15
"    "    tar . . . . .	4
"    "    pitch . . . . .	4
"    "    oil . . . . .	1
Bon fires . . . . .	19
Boys set by . . . . .	115
Brush fires . . . . .	14
Candles lighted . . . . .	42
Chimney fires . . . . .	19
Cigars lighted . . . . .	10
Cigarettes . . . . .	7
Defective boilers . . . . .	1
"    chimneys . . . . .	25
"    construction . . . . .	5
"    grates . . . . .	1
"    flues . . . . .	11
Drying plastering . . . . .	2
Electric light wires . . . . .	31
"    motors . . . . .	5
Fire crackers . . . . .	44
"    works . . . . .	11
Flash light . . . . .	1
Friction from machinery . . . . .	3
Fumigating . . . . .	2
Gas explosions . . . . .	5
Gas-jets lighted . . . . .	32
Gas-jets and curtains . . . . .	21
Gas stoves . . . . .	14
Gasoline stoves . . . . .	6
"    torches . . . . .	6
"    lamps . . . . .	1
Grass fire . . . . .	19

Hot coals . . . . .	4
“ iron . . . . .	5
Incendiary . . . . .	16
“ supposed . . . . .	23
Japan . . . . .	1
Kerosene-oil . . . . .	4
“ lamps . . . . .	42
“ “ explosions . . . . .	41
“ “ upset or broken . . . . .	68
“ “ stoves . . . . .	37
Lime slacking . . . . .	1
Lightning . . . . .	1
Matches, careless use of . . . . .	188
“ and children . . . . .	73
“ “ rats . . . . .	26
Overheated boilers . . . . .	4
“ chimneys . . . . .	5
“ flues . . . . .	1
“ furnaces . . . . .	18
“ kiln . . . . .	1
“ ovens . . . . .	3
“ ranges . . . . .	2
“ shafting . . . . .	3
“ stoves . . . . .	45
“ steam pipes . . . . .	3
Retorts . . . . .	1
Picker machines . . . . .	2
Plumbers furnaces . . . . .	8
Rekindling of fires . . . . .	1
Roofers furnaces . . . . .	2
Rubbish fires . . . . .	17
Smoky chimneys . . . . .	23
Smoky stoves . . . . .	16
Soot . . . . .	3
Steam escaping . . . . .	4
Stoves overturned . . . . .	1
Sparks from chimneys . . . . .	24
“ “ engines . . . . .	2
“ “ forges . . . . .	8
“ “ fires . . . . .	1
“ “ fire engines . . . . .	2
“ “ fire boxes . . . . .	5
“ “ furnaces . . . . .	1
“ “ grates . . . . .	1
“ “ locomotives . . . . .	34
“ “ smokers pipes . . . . .	46
“ “ stoves . . . . .	8

Smelters . . . . .	1
Spontaneous combustion . . . . .	63
Unknown . . . . .	186
Vapors from alcohol . . . . .	2
“ “ ammonia . . . . .	1
“ “ benzine . . . . .	1
“ “ gasoline . . . . .	2
“ “ naphtha . . . . .	1
“ “ paint . . . . .	1
“ “ turpentine . . . . .	1
“ “ varnish . . . . .	1
Water breaks . . . . .	2
Total . . . . .	<hr/> 1793
No fire (Sprinkler breaks) . . . . .	25
Marine (no loss) . . . . .	1

Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for nineteen years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured for nineteen years.

## BUILDINGS.

Year	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	5.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	6.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	8.68	23,478.10	358,459.20	7.00
1884	3,227,819.93	189,168.83	5.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	7.22	24,240.96	246,042.71	9.85
1886	2,733,588.56	275,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	5.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85	5.07	12,302.39	240,236.25	5.12
1889	4,583,384.25	911,382.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,357,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
1893	8,047,857.57	1,289,054.22	16.02	115,994.73	1,405,048.95	8.26
1894	6,849,379.33	636,964.32	9.30	236,195.41	873,159.73	27.05
1895	6,657,272.17	433,404.36	6.51	44,048.45	477,452.81	9.22
1896	9,154,604.15	589,103.88	6.43	34,599.75	623,703.63	5.54
1897	8,637,104.31	281,515.16	3.26	21,091.21	302,606.37	6.96
1898	7,975,555.55	438,316.94	5.49	14,315.34	452,632.28	3.16
1899	12,021,964.00	590,745.17	4.91	45,196.71	635,941.88	7.11
Tot.	\$104,927,346.23	\$7,811,274.03	7.44	\$1,287,190.54	\$9,098,464.58	14.15

## CONTENTS.

Year	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$31,813.20	\$336,605.78	9.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,409.07	506,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	8.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.81	715,197.05	20.01	76,243.41	791,440.47	9.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
1893	10,332,586.55	3,373,037.42	32.64	246,678.67	3,619,716.09	6.82
1894	3,892,242.42	669,857.10	17.25	183,610.73	853,467.83	21.51
1895	3,365,799.34	641,073.78	19.04	76,816.69	717,890.47	10.70
1896	4,060,722.82	674,830.31	16.61	68,631.98	743,462.29	9.23
1897	3,597,843.02	515,030.92	14.31	43,566.35	558,597.27	7.79
1898	4,301,196.37	891,288.56	20.72	71,964.09	963,252.65	7.47
1899	7,449,704.35	910,218.67	12.22	153,739.99	1,063,958.66	14.45
Tot.	\$77,429,462.66	\$17,751,508.05	22.93	\$2,411,081.27	\$20,162,589.33	11.46

## TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co.'s	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance
1881	\$3,905,227.61	\$420,404.61	16.76	\$467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,233.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.90	11.69	1,031,676.72	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,511,674.51	14.47
1892	8,481,051.58	731,948.78	8.62	846,395.12	9.97
1893	18,380,444.12	4,662,091.64	25.36	5,024,765.04	27.32
1894	10,742,621.75	1,306,821.42	12.16	1,726,627.56	16.05
1895	10,623,071.51	1,074,478.14	10.72	1,195,343.28	11.92
1896	13,215,326.97	1,263,934.19	9.56	1,367,165.92	10.35
1897	12,234,947.33	796,546.08	6.51	861,203.64	7.04
1898	12,276,751.92	1,329,605.50	10.83	1,415,884.93	11.53
1899	19,471,068.35	1,600,963.84	7.71	1,699,900.57	7.71
Tot.	\$182,356,808.89	\$25,562,782.08	14.02	\$29,261,053.94	16.04

Respectfully submitted,

EDWARD SPAULDING, *Secretary.*

# STATISTICS OF ALARMS AND FIRES FOR NINE YEARS.

Number of Buildings in the City, &c.										Number of Alarms and Fires.									
Year	Area Sq. Mile. 1895.	Brick, &c., Buildings last Report.	New Brick Buildings Completed.	Brick Buildings Totally Destroyed.	Total Brick Buildings.	Frame Buildings last Report.	Frame Buildings Completed (New).	Frame Buildings Totally Destroyed.	Total Frame Buildings.	Grand Total Brick and Frame Buildings.	Total Alarms.	Brick, Iron, &c.	Frame.	Outside.	Total Fires.	Confined to floor originated.	Confined to Building originated.	Extended to Adjoining Property.	Extending beyond Adjoining Property.
1891	37.04	448,477	22,700	1	22,700	43,800	1964	1	43,800	66,500	980	424	389	87	900	730	780	32	1
1892	"	"	23,028	13	23,028	45,763	1611	3	47,371	68,791	1196	510	495	89	1094	955	966	38	1
1893	"	"	23,267	13	23,267	45,763	1611	3	47,371	70,638	1253	500	403	264	1167	761	876	24	3
1894	"	"	23,653	398	12	23,653	1717	100	48,988	72,041	1253	477	469	115	1052	777	897	37	3
1895	"	"	23,653	328	1	23,653	1445	11	50,442	74,422	1234	471	457	96	1024	772	886	40	2
1896	"	496,920	24,292	25	24,292	50,442	1498	67	51,873	76,165	1397	546	485	101	1132	831	986	34	11
1897	"	"	24,292	364	68	24,588	2002	121	53,754	78,342	1438	613	542	126	1281	983	1107	39	9
1898	"	"	24,588	395	84	24,899	1262	62	54,954	79,853	1499	591	576	106	1273	995	1231	36	6
1899	"	"	24,899	317	16	25,200	990	205	55,739	180,939	1708	748	646	174	1568	1162	1328	48	18
Rents, Fire Loss and Ins.																			
Marine Fire Loss and Insurance.										Total Insur- ance there- on.									
Total Insur- ance thereon.										Total Insur- ance there- on.									
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Total Loss thereon.										Total Loss thereon.									
Total Insur- ance thereon.																			

## Marine Fire Loss and Insurance.

Total Loss thereon.	Total Insur- ance thereon.	Total Insur- ance there- on	Total Insur- ance Loss thereon.	Rents, Fire Loss and Ins.				
				Total Loss thereon.	Total Insur- ance there- on	Total Insur- ance Loss thereon.	Total Loss thereon.	Total Insur- ance there- on.
\$1,511,674.51	\$10,447,876.87	\$1,388,877.43	\$1,388,877.43	\$1,208.12	\$3,000.00	\$1,208.12	\$5,325.31	\$56,100.00
846,395.12	8,481,051.58	731,948.78	731,948.78	25,057.81	58,057.57	25,057.81	17,184.64	98,000.00
5,024,763.04	18,880,444.12	4,662,091.64	4,662,091.64	52,619.32	505,500.00	50,569.32	127,733.41	37,591.00
1,726,627.56	10,712,621.75	1,306,821.42	1,306,821.42	350.00	4,000.00	350.00	4,651.95	30,940.00
1,196,343.28	10,023,071.51	1,074,758.14	1,074,758.14	56,842.82	58,799.00	56,742.82	1,363.18	68,350.00
1,367,165.92	13,216,329.97	1,263,934.19	1,263,934.19	13,652.07	239,465.00	13,652.07	16,366.28	128,700.00
861,203.64	12,234,941.53	736,546.08	736,546.08	1,161.48	10,000.00	961.48	7,161.53	117,000.00
1,415,884.93	12,276,751.92	1,329,605.50	1,329,605.50	47,350.00	1,150,500.00	47,000.00	1,533.28	44,850.00
1,039,900.57	19,471,668.36	1,500,963.84	1,500,963.84				19,259.28	99,800.00

\*Estimated. Buildings destroyed by fire, 1 brick and 53 frame.

\*Buildings demolished, 15 brick and 152 frame.

## MEDICAL EXAMINER'S REPORT.

SAMUEL ABBOTT, JR.

*Supt. Boston Protective Department.*

*Dear Sir:* According to the usual custom the annual report of the Medical Office to the Department for the year ending March 1, 1900, is herewith respectfully submitted.

Number of applications for appointment . . . . .	25
Number of applications for promotion . . . . .	43
*Number of visits made to sick members . . . . .	46
*Number of visits made to injured members . . . . .	52
Number of attending physicians' reports examined . . . . .	40
Number of special reports . . . . .	6
Number of certificates of health to return to duty . . . . .	27

The following table will show the work according to months:

Month.	Exam.	Sick	Injured.	Special	Rejections
March	3	3	6	1	
April				1	
May	2	1			
June	30	1	2		4
July	7	2	1		1
August	6				1
September	3	2	3		
October	3	1	1	2	1
November	6	1	1		
December		1		1	
January	2		2	1	
February	7	1			

### REJECTIONS.

Of those examined for promotion one was rejected on account of physical disability; of those examined for membership six were rejected for the following reasons:

Over weight . . . . .	1
Low Sp. Gr. of urine . . . . .	1
Defective vision . . . . .	1
Heart disease . . . . .	1
Disease of lungs . . . . .	2

Would report that in one case when there was at time of first examination of the urine a Sp. Gr. too low to admit of accepting the applicant, that six months later this disability had disappeared and the appointment was recommended.

\*These numbers include the number of reports (31) of sick and injured forwarded to Superintendent also additional visits on numbers when reports were not required.



The causes for sick leave have been found to be as follows:

Acute indigestion . . . . .	2
La grippe . . . . .	1
Acute tonsillitis . . . . .	2
Typhoid fever . . . . .	2
Sciatica . . . . .	1
Cholera morbus . . . . .	1
Simple febricula . . . . .	1
Malaria . . . . .	1
Remittent fever . . . . .	1
Influenza . . . . .	2

The cause for absence on account of injury were as follows:

Strain of ankle . . . . .	1
Lacerated wound . . . . .	2
Punctured wound of knee . . . . .	1
Incised wound of elbow . . . . .	1
Epididymitis . . . . .	2
Dog bite . . . . .	1
Scalp wound . . . . .	1
Strain of shoulder . . . . .	1
Contusion of knee . . . . .	1
Acute synovitis . . . . .	1
Contusion of finger . . . . .	1
Muscular strain . . . . .	1
Contusion of face . . . . .	1
Traumatic conjunctivitis . . . . .	1
Gonorrhœa . . . . .	1

#### SPECIAL REPORTS.

Special reports have been furnished during the year in regard to four members of the department and these reports are on file at the office of the superintendent.

The medical officer has been called upon to investigate and forward to the department special reports in regard to three (3) accident cases which have occurred during the year.

For the courteous consideration by the entire department towards your medical officer my thanks are due.

WM. F. TEMPLE, M. D.

*Medical Officer Boston Protective Department.*



## EXHIBIT A.

Review of Districts where alarms were given, for nineteen years, from March 1st to March 1st, of each year

YEARS.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	Total	Per Cent.
City Proper	288	285	347	362	349	360	412	464	440	487	504	681	626	595	652	663	788	772	905	9,980	52.06
Roxbury	49	53	63	70	65	82	87	79	74	70	106	117	120	161	178	174	209	191	276	2,224	11.60
South Boston	29	29	50	51	42	56	73	79	63	84	98	117	58	114	122	114	129	114	144	1,560	8.29
Charlestown	35	41	46	42	48	41	62	57	63	94	104	121	107	118	93	105	109	114	108	1,508	7.87
East Boston	45	50	51	44	47	51	67	51	61	57	57	63	75	76	73	66	68	103	102	1,201	6.27
Dorchester	25	27	38	47	39	26	30	31	31	61	54	60	60	118	81	84	99	100	129	1,140	5.96
West Roxbury	33	17	33	12	45	24	38	34	44	41	63	55	22	68	65	62	75	62	88	881	4.59
Brighton	13	5	18	16	32	21	27	23	18	28	24	28	121	26	28	41	46	46	37	598	3.12
Cambridge	2	1	1	2	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	11	
Chelsea	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	
Brookline	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	1	1	3	
Everett	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	2	
Harbor	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1	1	1	3	
Hyde Park	-	-	-	-	-	1	-	-	-	1	1	-	-	-	1	-	1	1	2	10	.25
Milton	-	1	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1	
Newton	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	6	
Somerville	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Watertown	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Total Alarms	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	1793	19,170	100

## EXHIBIT B.

Review of causes of alarms and fires, for nineteen years, from March 1st to March 1st, of each year

CAUSES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	Total	Per Ct.
Ashes, wooden receptacles hot	7																			209	1.40
Buildings, defective	23	26	21	24	21	23	24	30	21	25	11	16	21	11	23	24	38	49	20	572	2.98
Causes not enumerated	102	81	117	96	129	98	136	122	131	233	308	285	255	263	249	210	230	244	390	3389	19.29
Combustion, spontaneous	17	34	30	18	13	23	29	32	21	34	34	56	32	37	38	50	36	39	63	636	3.32
Electricity	0	0	4	3	3	7	8	8	6	15	10	27	35	35	25	29	48	33	36	332	1.73
Fireworks	7	2	1	13	6	11	39	45	5	12	19	16	26	30	36	32	34	33	55	424	2.21
Gas	28	18	21	20	25	21	23	34	30	37	54	53	53	77	66	69	133	82	72	916	4.78
Incendiary supposed	48	35	64	57	46	63	44	37	48	22	40	51	32	59	41	56	42	37	39	864	4.51
Kerosene oil	36	39	46	65	85	69	75	87	120	90	109	138	172	134	125	167	193	202	192	2144	11.19
Matches	65	60	94	78	65	102	147	110	110	94	135	150	166	175	179	168	251	211	287	2647	13.80
Needless	53	57	66	72	47	59	59	79	94	46	36	75	74	101	155	175	149	165	168	1760	9.18
Overheating	26	27	26	42	40	39	39	45	40	61	63	58	60	69	81	68	92	67	86	1029	5.37
Sparks	31	27	33	36	34	29	39	40	35	41	44	93	61	78	98	81	83	99	133	1115	5.82
Unknown	65	78	85	94	123	90	107	111	121	188	116	145	140	129	88	117	128	136	186	2247	11.72
Vapors, igniting	7	12	11	4	14	13	5	10	10	6	7	11	15	24	23	13	32	27	10	254	1.33
Water Pipes, attempt to thaw	6	5	13	21	9	7	11	8	1	4	5	35	15	21	28	9	19	31	14	262	1.37
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	1793	19,170	100.

## EXHIBIT C.

Review of hours in duty when alarms were received, for nineteen years,  
from March 1st to March 1st, of each year.

		Years.		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	Total	Per Ct.
Day Service.	6 to 7 A.M.	7	10	11	10	11	17	17	16	10	12	16	22	33	28	27	18	27	34	31	357	3.741		
	7 " 8 "	13	10	12	21	19	14	25	18	17	33	25	27	27	28	42	46	29	38	45	487			
	8 " 9 "	14	18	20	22	31	22	21	23	37	34	26	32	41	31	44	44	53	61	55	629			
	9 " 10 "	23	14	25	23	15	27	25	38	22	30	36	44	49	48	47	42	51	66	49	674	19.51		
	10 " 11 "	15	24	24	26	34	23	32	26	26	43	36	51	66	48	66	54	67	61	92	814			
	11 " 12 noon	23	17	24	28	32	19	26	36	29	37	39	46	42	66	57	50	74	62	73	780			
	12 " 1 P.M.	27	24	29	22	29	27	30	33	27	36	36	40	62	61	73	50	63	73	79	821	5.482		
	1 " 2 "	13	22	23	33	28	23	32	20	29	34	48	63	35	63	61	58	66	69	80	800			
	2 " 3 "	18	18	38	27	29	21	35	36	28	38	51	48	42	57	59	69	72	71	94	851			
	3 " 4 "	24	16	39	28	28	13	39	41	31	40	46	70	53	66	64	64	66	66	90	884	28.60		
	4 " 5 "	23	22	31	34	28	8	45	45	42	56	50	87	67	62	81	55	66	72	99	973			
	5 " 6 "	48	25	40	42	45	20	44	53	59	53	74	74	71	60	63	76	90	96	120	1153			
Night Service.	6 " 7 "	43	39	46	37	44	49	35	55	58	64	90	80	80	83	95	111	92	128	1284	7.070			
	7 " 8 "	30	39	49	50	54	55	63	60	62	57	91	95	80	95	93	105	114	115	121		1428		
	8 " 9 "	39	35	45	45	42	42	58	58	67	91	82	88	100	96	78	78	110	127	130		1411		
	9 " 10 "	32	24	36	49	40	31	56	57	54	62	58	65	71	80	79	90	96	96	110	1186	36.88		
	10 " 11 "	38	28	28	40	29	37	39	37	57	48	50	66	58	67	54	76	71	75	85	983			
	11 " 12 M'd'n	17	23	31	17	23	26	45	35	42	37	29	50	42	53	52	60	85	46	65	778			
	12 " 1 A.M.	24	19	20	20	20	33	26	34	25	36	46	45	38	38	32	40	44	49	622	2.878			
	1 " 2 "	15	23	23	15	27	40	24	32	29	30	25	45	26	35	30	46	47	32	44		578		
	2 " 3 "	8	20	21	16	24	26	22	20	21	19	34	24	26	31	23	32	34	28	49		478		
	3 " 4 "	7	17	13	16	12	35	18	29	18	22	23	27	35	30	29	29	37	37	38	472	15.01		
	4 " 5 "	13	14	10	17	10	28	20	13	14	10	21	30	20	29	25	19	29	24	29	375			
	Totals		521	510	468	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	1793	19,171	100.	

## EXHIBIT D.

Review of days of the week when alarms were received, for nineteen  
years, from March 1st to March 1st, of each year.

Days.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	Total	Per Ct.
Monday	83	65	88	93	85	109	139	113	98	111	130	180	143	179	191	188	253	244	270	2762	14.41
Tuesday	73	74	107	89	84	98	98	109	131	150	165	179	201	166	163	180	223	230	319	2839	14.82
Wednesday	76	87	101	98	102	95	113	130	118	122	155	187	199	227	186	188	228	229	256	2897	15.14
Thursday	65	52	84	90	98	87	131	115	115	147	136	202	171	198	192	147	204	185	223	2642	13.72
Friday	84	74	98	100	109	79	111	123	138	162	139	157	157	180	181	223	203	218	256	2792	14.58
Saturday	65	81	83	93	112	103	122	133	120	137	169	189	155	171	223	221	214	263	267	2866	14.94
Sunday	75	77	82	85	79	91	84	96	100	93	121	148	163	155	160	163	202	196	202	2372	12.39
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	1793	19,170	100.00

## EXHIBIT E.

Review of grade of losses for nineteen years, commencing January 1st  
and ending December 31st, of each year.

Years	Total Al'm	No Loss	Under \$100	\$100 to \$500	\$500 to \$1000	\$1000 to \$5000	\$5000 to \$10,000	\$10,000 to \$15,000	Over \$15,000	Total Fires with Loss	Average loss to Total fires with loss.
1881	558	214	156	84	32	47	11	7	7	344	\$1,357.86
1882	502	173	124	87	32	54	13	5	14	329	2,914.39
1883	611	270	124	109	30	64	14	14	16	371	3,053.86
1884	633	235	169	93	46	57	14	3	16	398	2,766.96
1885	655	258	167	98	41	62	11	4	14	397	3,103.91
1886	687	230	217	125	39	43	12	3	9	448	2,431.24
1887	754	294	197	115	51	65	16	6	10	460	1,500.98
1888	834	280	262	140	45	72	12	3	20	564	1,862.23
1889	788	294	220	137	46	54	20	5	12	494	9,756.84
1890	933	371	283	140	39	68	15	3	14	562	1,937.52
1891	1012	406	307	130	45	83	16	9	16	606	2,494.51
1892	1196	481	350	185	64	83	14	9	10	715	1,183.76
1893	1233	549	342	161	50	86	22	5	18	684	7,346.14
1894	1233	519	331	202	60	83	16	8	14	714	2,418.24
1895	1234	515	365	180	55	84	15	4	16	719	1,662.41
1896	1397	584	383	221	64	102	22	2	19	813	1,681.63
1897	1435	478	543	229	60	88	17	10	10	957	899.86
1898	1499	532	513	250	76	93	14	6	15	967	1,464.20
1899	1768	660	571	278	91	114	21	8	25	1108	1,534.20
Totals	18,992	7352	5624	2964	966	1402	295	114	275	11,640	\$2,513.84
Per Ct.	100	38.71	29.61	15.61	5.09	7.38	1.55	.60	1.45	61.29	

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TWENTY-SEVENTH

ANNUAL REPORT

OF THE

*Boston Protective Department,*

From March 1, 1900, to March 1, 1901.



TWENTY-SEVENTH  
ANNUAL REPORT

OF THE

**Boston Protective Department,**

From March 1, 1900, to March 1, 1901.

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# OFFICERS.

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*President:*

GEORGE A. EASTMAN.

*Vice-President:*

B. B. WHITTEMORE.

*Secretary-Treasurer:*

EDWARD SPAULDING.

*Directors:*

TO SERVE UNTIL MARCH, 1901.

B. B. WHITTEMORE.

W. H. ROGERS.

G. C. HOLT.

TO SERVE UNTIL MARCH, 1902.

GEORGE A. EASTMAN.

W. H. ELLISON.

RICHARD F. BARRETT.

TO SERVE UNTIL MARCH, 1903.

GEORGE P. FIELD.

FREDERIC HINCKLEY.

EDWARD C. BRUSH.



Boston, March 13th, 1901.

The Directors submit herewith the 27th Annual Report of the Department, with the reports of the Superintendent, Secretary, Treasurer and Medical Officer, and the usual statistical tables.

The Board recommend, first, that the active duties of the Department be continued for the ensuing year; second, that the Directors be authorized to expend for the maintenance of the Department during the year a sum not exceeding Eighty Thousand Dollars.

In recommending this appropriation the Directors would state that Company No. 3 has been in service for more than eighteen months and the maximum yearly expense would seem to be established. It is therefore felt that the present efficient service can be maintained, under ordinary conditions, at a sum not exceeding Seventy-five Thousand Dollars. As the margin last year was small, however, it is thought expedient to have a sufficient amount available to meet any emergency that may arise.

The sinking fund inaugurated by the Board of Directors in 1899 from fees received from watch duty, has been increased during the past year. If this fund be continued and applied to the purchase of House No. 3, under the option in the Lease, a considerable saving of rent can be made.

For the Directors,

GEORGE A. EASTMAN,  
*President.*

TREASURER'S  
RECEIPTS AND EXPENDITURES OF THE BOSTON

1900.		
March.	By Cash on hand, Balance . . . . .	\$10,994.41
	Balance of Assessment January 1, 1900 . . . . .	19,940.48
	Assessment of July 1, 1900 . . . . .	40,981.25
	Collected of Assessment January 1,* 1901 . . . . .	7,491.65
	Cash received for Watch Duty . . . . .	1,333.17
	Cash received for Automatic Fire Alarm Credit . . . . .	59.39
	Cash received for Interest . . . . .	224.54
	Cash received from Various Sources . . . . .	52.57
		\$81,077.46
	*Balance uncollected . . . . .	\$26,291.65

NET RUNNING EXPENSES.

March, 1876, to March, 1877 . . . . .	\$27,311.72
March, 1877, to March, 1878 . . . . .	26,927.86
March, 1878, to March, 1879 . . . . .	23,975.96
March, 1879, to March, 1880 . . . . .	25,733.80
March, 1880, to March, 1881 . . . . .	28,288.46
March, 1881, to March, 1882 . . . . .	26,593.69
March, 1882, to March, 1883 . . . . .	26,399.49
March, 1883, to March, 1884 . . . . .	35,177.68
March, 1884, to March, 1885 . . . . .	35,253.10
March, 1885, to March, 1886 . . . . .	37,047.94
March, 1886, to March, 1887 . . . . .	33,833.64
March, 1887, to March, 1888 . . . . .	38,534.07
March, 1888, to March, 1889 . . . . .	39,861.16
March, 1889, to March, 1890 . . . . .	45,527.88
March, 1890, to March, 1891 . . . . .	42,706.85
March, 1891, to March, 1892 . . . . .	44,144.12
March, 1892, to March, 1893 . . . . .	54,344.08
March, 1893, to March, 1894 . . . . .	58,655.41
March, 1894, to March, 1895 . . . . .	56,125.42
March, 1895, to March, 1896 . . . . .	61,423.48
March, 1896, to March, 1897 . . . . .	60,171.90
March, 1897, to March, 1898 . . . . .	60,767.10
March, 1898, to March, 1899, reserved for Equipment of House No. 3	\$3,000 and 64,875.01
March, 1899, to March 1900, " " " " " "	1,269.31 and 67,719.57
March, 1900, to March, 1901, . . . . .	71,500.76

## REPORT.

PROTECTIVE DEPARTMENT FOR YEAR ENDING MARCH, 1901.

## To Cash paid:—

Pay-roll, Permanent force, Company No. 1 . . .	\$17,347.77
Auxiliary " " " . . .	4,169.86
Call " " " . . .	300.06
Permanent " " No. 2 . . .	13,995.87
Auxiliary " " " . . .	4,089.30
Permanent " " No. 3 . . .	9,001.35
Auxiliary " " " . . .	127.12
Call " " " . . .	722.05
Paid for Watch Duty After Fires . . .	721.04
Secretary, Treasurer and Office . . .	2,850.00
Medical Officer . . .	500.00
Rent and Taxes of Houses . . .	8,041.22
Hay and Grain . . .	1,360.92
Wagon and Harness Repairs . . .	573.44
Horseshoeing . . .	590.64
Fuel . . .	678.15
Gas . . .	534.20
Washing . . .	314.13
Supplies . . .	603.44
New England Telephone and Telegraph Co. . .	812.80
Automatic Fire Alarm and Electric Apparatus . . .	249.79
Water Tax . . .	146.80
Repairs and Furnishing of Houses . . .	528.74
Veterinary Services . . .	235.38
Sundries . . .	279.84
Directors' and Committee Meetings . . .	109.00
Printing and Stationery . . .	2,035.35
Advertising Annual Meeting . . .	48.00
Auditors' Fees . . .	60.00
Surety Bond . . .	40.00
Employers' Liability . . .	499.17
Horse Purchase and Hire . . .	330.00
Legal Advice . . .	60.00
Wagon Damage . . .	15.00
	<hr/>
Assessments Remitted . . .	\$71,970.43
Suspense Account Overdue Assessments . . .	51.81
Sinking Fund For Building Purchase . . .	241.22
	<hr/>
Balance. Cash on Hand . . .	1,200.00
	<hr/>
	7,614.00
	<hr/>
	\$81,077.46

E. &amp; O. E.

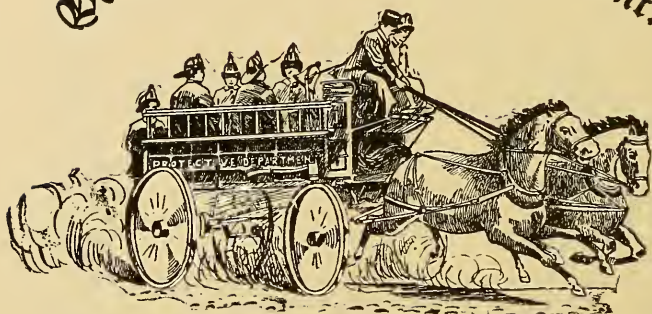
EDWARD SPAULDING, *Treasurer.*

BOSTON, March, 15, 1901.

Audited and found correct to date.

EDWARD D. BLAKE,	} <i>Auditing Committee.</i>
JOHN H. EDDY,	
FRED'K W. PORTER,	

# Boston Protective Department.



## SUPERINTENDENT'S REPORT.

HEADQUARTERS PROTECTIVE DEPARTMENT, }  
OFFICE OF SUPT. NO. 40 PURCHASE ST., }

BOSTON, March 1st, 1901.

TO THE PRESIDENT AND BOARD OF DIRECTORS:

*Gentlemen:* In compliance with Article IV, of By-Laws of the corporation of the Boston Protective Department, authorized by an Act entitled "An act to incorporate the Boston Protective Department," passed March 9, 1874, amended February 4, 1879, I herewith submit the Twenty-seventh Annual Report of operations of the Department for the year 1900, ending March 1, 1901.

The several tables of statistics heretofore submitted, have been extended to include the period above mentioned. (See Secretary's Report and Exhibits.)

### ORGANIZATION.

The organization of the Department continues the same as last year.

*Superintendent*, SAMUEL ABBOTT, JR.

*Secretary-Treasurer*, EDWARD SPAULDING.

*Medical Officer*, DR. WM. F. TEMPLE.

Co. No. 1. 40 Purchase St.	Total	Co. No. 2. 4 Appleton St.	Total	Co. No. 3. Roxbury, cor. Gay Sts.	Total	Grand Total
Captains, James H. Huff.....	1	Daniel W. Brown.....	1	Henry E. Thompson....	1	3
1st. Lieuts., Jas. T. Fitzgerald.	1	John J. McCarthy.....	1	None.....	0	2
2d. Lieuts, James H. Ryan ..	1	John P. Lane.....	1	Samuel A. McDonnell ..	1	3
First Grade Privates.....	3	.....	3	.....	1	7
Second ".....	0	.....	0	.....	0	3
Third ".....	5	.....	3	.....	3	11
Fourth ".....	1	.....	1	.....	2	4
Auxiliary ".....	9	.....	9	.....	0	18
Call ".....	1	.....	0	.....	4	5
Clerk.....	1	.....	0	.....	0	1
Janitor and Messenger.....	0	.....	0	.....	1	1
Totals	23		22		13	58

#### BUILDINGS, ALARMS, FIRES, INSURANCE AND LOSS FOR 1901.

On January 1, 1900 there were 25,200 brick, stone, iron, and 55,739 frame buildings in the City of Boston, making a total of 80,939 buildings; during the year there were 614\* brick, stone, iron, and 1238\* frame buildings completed. 20 frame buildings were totally destroyed by fire, 18 brick and 28 frame buildings were demolished in various parts of the city, making the total number of buildings at the end of the year 25,796 brick, stone, iron, and 56,929 frame; grand total 82,725 buildings.

The total alarms during the year 1900 (January 1st to December 31st inclusive) were 1,779 of which 1,560 were for fires; of these 734 occurred in brick, stone and iron buildings, 634 in frame buildings and 192 outside; the number of fires to 1,000 population were 3.17.

Of these fires 1138 were confined to the floor where they originated, 1290 to the building where they originated, 47 extended to adjoining property, and 31 extended beyond adjoining property; the per cent. of fires confined to building where they originated was .83.

The total loss on buildings and contents was \$1,674,776.44, total

\*By courtesy of Inspection of Building Department City of Boston.



insurance, \$18,033,141.01 and the total insurance loss was \$1,407,584.56 the above was divided as follows:—

Total loss on buildings . . . . .	492,656.27
Total insurance loss on buildings . . . . .	435,426.12
Total insurance on buildings . . . . .	11,317,560.01
Per cent of total loss not insured on buildings . . . . .	11.62
Total loss on contents . . . . .	1,182,120.17
Total insurance loss on contents . . . . .	972,158.44
Total insurance on contents . . . . .	6,715,581.00
Per cent of total loss, not insured, on contents . . . . .	12.23

The loss per capita was \$2.99 which does not include the Marine, Fire and Rent losses.

The total Rent loss was \$47,154.74 and the total insurance thereon was \$208,750.

The per cent of grade of alarms and losses for 1900 were as follows:—

35.64	had no loss.
32.83	the loss was under \$100.
17.70	“ “ “ from \$100 to \$500.
4.33	“ “ “ “ \$500 to \$1,000
6.69	“ “ “ “ \$1,000 to \$5,000.
1.40	“ “ “ “ \$5,000 to \$10,000.
.34	“ “ “ “ \$10,000 to \$15,000.
1.07	“ “ “ over \$15,000.

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THE OPERATIONS OF THE DEPARTMENT FOR THE YEAR  
ENDING March 1st, 1901, ARE AS FOLLOWS:—

		Co. No. 1.	Co. No. 2.	Co. No. 3.
Alarms.	{ Bell . . . . .	554	550	458
	{ Still . . . . .	79	75	34
	{ Automatic . . . . .	81	39	5
Responded to by	{ Wagon . . . . .	563	582	403
	{ Callmen . . . . .	223	117	118
Total alarms.		714	664	497
Hours Duty.	{ At fires . . . . .	636.20	608.41	493.07
	{ After fires protecting goods . . . . .	262.21	104.42	28.19
	{ Watch . . . . .	4,403.50	1,812.30	552.35
	{ Total . . . . .	5,302.31	2,525.53	1,074.01
Covers Used.	{ On goods . . . . .	2,203	1,675	230
	{ “ protecting from storms . . . . .	59	10	0
	{ On roofs . . . . .	76	114	74
	{ Total . . . . .	2,338	1,799	304
Extinguishers used . . . . .		23	51	28

*Second Section (in section) Called in Service.*

		Co. No. 1.	Co. No. 2.	Co. No. 3.
First Alarm	{ When 1st out section was at fire	8	10	19
	{ When all other sections were at fire	0	0	0
	{ When covering a company district	0	5	9
Second Alarms	{ 2d Alarms	26	21	10
	{ With 2d section wagon during day time	3	1	0
Telephone calls	.	2	2	2
Messenger calls	.	0	1	0
Covering	{ When both sections of a company were at fire	3	36	29
Auxiliary Force retained on day duty after a fire	.	12	8	0
" " " " " " extra hazardous days	.	2	1	0
Protecting roofs	.	0	0	0
Totals	.	56	85	69

The total number of alarms and fires were 1772 it being 21 less than last year.

There were 1,326 $\frac{3}{10}$  hours' fire service, 6,768 $\frac{1}{4}$  hours' watch duty and 392 $\frac{2}{10}$  hours' service, protecting buildings and contents from storms, equivalent to 848 days of 10 hours each, it being 190 days less in comparison with the previous year. There were 4,108 covers used in covering goods at fires, 69 on goods and 264 on roofs, protecting the buildings and contents after fires from additional damage by storms; which makes a total of 4,441 covers used; representing 959,256 square feet, it being 65,664 square feet more than was spread last year.

Review of alarms and fires for twenty years. From 1881 to 1900 inclusive; commencing with 1st, and ending last day of February of each year.	In City Districts,	Exhibit A.	Page 3
	Causes,	" B.	" 3
	Hours of the Day, { 65 per cent of alarms and fires have occurred between the hours of 12 o'clock noon and 12 o'clock midnight. }	" C.	" 3
	Days of the Week,	" D.	" 3
	Insurance and loss on buildings and contents,		" 1
Review of losses on buildings and contents for twenty years from 1881 to 1900 inclusive, commencing January 1st, and ending December 31st of each year.	Insurance and Loss, { 15.95 per cent. of total loss on buildings and contents was not insured. }	"	2
	Grade of Losses, { 61.56 per cent. of all alarms were for fires with a loss; the average loss for each fire was \$2,420.47. }	Exhibit E.	Page 3

## SPRINKLERS.

The operations of the department in buildings equipped with the sprinkler system, for the year ending March 1, 1901, were as follows:—

Date.	Street.	Duty Performed	Covers Spread.	Sprink'r Heads replaced	Loss.		Cause.
		H. M.			Building.	Contents.	
Mar. 4, 1900	A Street,	5.50	23	1	None	\$33.65	Frost.
" 8, "	Rutherford Ave.,	1.15	12	0	None	None	Fire operated sprinkler head.
" 13, "	Western Ave.,		0	0	None	\$5,017.61	Fire operated sprinkler head.
" 21, "	81 Hawley,	.14	0	0	None	None	Workmen letting on water system.
" 23, "	68 Essex,	.28	0	0	None	None	Workmen draining sprink pipes.
" 26, "	514 Atlantic Ave.,	.27	2	0	None	None	Workman accidentally breaking pipes.
April 5, "	152 Congress,	.17	0	0	None	None	Unknown.
" 5, "	277 Congress,	.36	4	1	None	762.93	Sprinkler break.
" 15, "	1337 Washington,	1.16	0	1	\$175.00	None	Fire operated sprinkler head.
" 19, "	558 Washington,	.32	0	0	None	None	Varying street pressure,
" 21, "	185 Essex,	1.50	8	1	None	\$639.23	Unknown.
" 21, "	121 Medford	1.16	0	0	None	\$280.00	Fire operated sprinkler head.
" 27, "	281 Congress,	.30	0	1	None	None	Leaky sprinkler head.
" 28, "	273 Congress,	.40	0	0	None	None	Probably water hammer.
" 29, "	417 Washington,	.21	0	0	None	None	Probably water hammer.
May 2, "	3 Randolph,	.34	0	0	None	None	Water hammer.
" 2, "	181 Essex,	.15	0	0	None	None	Water hammer.
" 6, "	152 Congress,	.35	0	0	None	None	Water hammer.
" 7, "	Bickford & Centre,		0	0	None	\$91 34	Sprinkler leak.
" 10, "	3 Randolph,	.13	0	0	None	None	Water hammer.
June 7, "	558 Washington,	1.42	0	1	None	None	Excessive heat opened sprinkler head.
" 7, "	277 Congress,	.36	1	1	None	None	Workmen breaking sprinkler head.
" 16, "	152 Congress,	.41	1	1	None	None	Leaky sprinkler head.
" 17, "	232 Dover,	.23	0	0	None	None	Water hammer.
" 25, "	417 Washington,	.19	0	0	None	None	Water hammer.
July 12, "	89 Broad,	.29	0	0	None	None	Leaky sprinkler head.
" 21, "	128 Charlestown,	.54	0	0	None	None	Sprinkler break—heat from forge.
" 30, "	11 East,		0	0	None	\$25 00	Leaky joint.
Aug. 4, "	556 Atlantic Ave.,	2.64	23	0	None	\$456.44	Belting breaking sprinkler pipe.
" 13, "	Rear 610 Atlantic Av.	5.56	3	1	None	\$283 04	Fire operated sprinkler head.
" 14, "	53 Wareham,	.44	0	1	None	None	
Sept. 4, "	356 Washington,	.40	0	0	None	None	Leak.
" 16, "	94 Portland,	.34	0	0	None	None	Leaky pipe.

## SPRINKLERS—continued.

Date.	Street.	Duty Performed.	Covers Spread.	Sprinkler Heads replaced.	Loss.		Cause.
		H. M.			Building.	Contents.	
Sept. 26, 1900	128 Charlestown,	1.07	0	5	None	None	Overflow of tank.
" 28, "	83 South,	.28	0	0	None	None	Water hammer,
" 28, "	E. 9th & Burnham,	.33	0	0	None	\$39 00	Explosion of kettle of japan.
" 29, "	277 Congress,	.19	0	0	None	None	Water hammer.
Oct. 3, "	Tileston Sq.,	2.16	27	0	None	\$622 95	Sprinkler operated.
" 5, "	5-27 Winter,	1.27	0	0	None	\$129.18	Employee breaking sprinkler head
" 15, "	15-96 Chauncy,	.27	0	0	None	None	Water hammer.
Nov. No Sp	sprinkler calls.		0	0	None	None	
Dec. 3, 1900	520 Harrison Ave.,	1.51	0	0	None	None	Leak from tank on roof.
" 11, "	31 Hawley,	.22	0	0	None	None	Bursting of sprinkler pipe.
" 11, "	35 Harrison Ave.,	.33	0	0	None	None	Leaky sprinkler head in basement.
" 15, "	417 Washington,	Not notified.	0	0	None	None	Sprinkler burst in fan room—freezing.
" 17, "	277 Congress,	.38	0	0	None	None	Sprinkler head struck by case of goods.
" 18, "	85 Essex,	1.11	0	0	None	None	Probably water hammer.
" 19, "	281 Congress,	.25	0	0	None	None	Workman striking sprinkler head.
" 22, "	610 Atlantic Ave.,	.18	0	0	None	None	Bursting of sprinkler pipe on sixth floor.
" 23, "	610 Atlantic Ave.,	.57	0	0	None	None	Water hammer.
Jan. 7, 1901	273 Congress,	.31	0	0	None	None	Workman in basement striking sprinkler head.
" 10, "	118 Kneeland,	11.55	0	0	None	None	Break in vent pipe.
" 14, "	89 Beach,	.22	0	0	None	None	Water hammer.
" 14, "	17 East,	.55	2	0	None	None	Accidental breaking of pipe.
" 19, "	31 Hawley,	.11	0	0	None	None	Breaking of pipe by frost.
" 20, "	658 Washington,	2.08	8	0	None	\$84 01	Cause unknown.
" 20, "	520 Harrison Ave.,	.25	0	0	None	None	In basement, cause unknown.
" 21, "	120 Fulton,	1.10	0	0	None	None	Freezing of pipe, first floor.
" 26, "	273 Congress,	.39	0	0	None	None	Accidental.
Feb. 11, "	9 Knapp,	4 50	82	0	None	None	Unknown.
" 11, "	East,	.24	0	0	None	None	Workman striking sprinkler head.
" 17, "	490 Hanover,	1.22	0	0	None	None	Water hammer.
" 27, "	Albany,	1.25	0	0	None	None	Breaking of supply pipe.

In conclusion, I desire to express my sincere thanks to all departments or persons who have in any way assisted this Department during the past year.

Respectfully submitted,

SAMUEL ABBOTT, JR.,  
Superintendent.

## SCHEDULE OF PROPERTY.

OWNED BY THE DEPARTMENT AND CONTAINED IN HOUSES ONE, TWO  
AND THREE AND IN THE OUTLYING DISTRICTS.

---

Horses . . . . .	14
Wagons large "complete" . . . . .	5
Wagon small "complete" . . . . .	1
Wagon large "spare" . . . . .	1
Wagon supply . . . . .	1
Pungs "complete" . . . . .	3
Wagons for Superintendent . . . . .	2
Sleighs " " . . . . .	2
Rubber covers "stock" . . . . .	582
Rubber covers "roof" . . . . .	14
Canvas covers for roofs . . . . .	4
Fire extinguishers . . . . .	11
Life saving blankets . . . . .	6
Sets of patent double harnesses . . . . .	6
Single harnesses . . . . .	2
Lead reins, 4 horse . . . . .	5
Wagon poles "extra" . . . . .	3
Wheels "extra" . . . . .	4
Whiffletrees "extra" . . . . .	5
Lead bars, 4 horse . . . . .	5
Bedsteads with bedding . . . . .	54
Billiard table "complete" . . . . .	1
Fire hats . . . . .	51
Necessary tools and equipments.	
" stable equipments.	
" extra parts of harnesses.	
" house furniture and fixtures.	
" telegraph apparatus.	
" gas fixtures.	
" supplies.	
" stationery.	

For detailed statement see Quarterly Report at Superintendent's  
Headquarters.



Duty performed by Company No. 1, from March 1, 1900, to March 1, 1901.

Months.	Alarms responded to.							Hours on duty.			Covers spread.				Second section of Company calls.										Totals.									
	Box.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	Watching after Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	1st Alarms.					2d Al's.					Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous, days.	Protecting Roofs.			
																	When 1st out-section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.											
March, 1900	42	7	2	42	14	51	3	H. M. 79.19	H. M. 65.39	H. M. 493.57	H. M. 638.55	313	1	22	336	3		4						4								8		
April, "	44	5	8	45	16	57	4	41.40	7.06	582.39	631.25	96	2	3	101	2	1	1						1								6		
May, "	37	6	7	34	24	50		44.35	2.47	87.50	135.12	164	4		168			2													2			
June, "	61	11	7	58	31	79	2	58.38	31.51	288.50	379.19	128	7	34	169	4	1	3						3								5		
July, "	56	8	9	64	20	73	2	57.16	8.55	248.43	314.54	156	4		160	2		1														3		
Aug., "	38	3	11	48	13	52	1	28.32	47.27	293.55	369.54	208	16		224			1														2		
Sept., "	37	11	3	42	14	51	1	36.49	11.15	238.13	286.17	93	3		96	8								3	1							5		
Oct., "	37	7	6	35	19	50		38.47	23	217.20	256.30	65	1		66																		2	
Nov., "	45		5	38	21	50		43.16	7.39	181.37	235.32	118	3		121	1		2																
Dec., "	70	9	10	72	26	89		84.47	33.13	950.14	1048.14	298	2		300	2	4																	
Jan., 1901	40	8	6	38	14	51	8	51.36	16.38	374.57	446.11	198	6		204			6																
Feb., "	47	4	7	47	11	58	1	68.05	29.28	442.35	540.05	366	27		393	1	2	3																
Totals	554	79	81	563	223	714	22	636.20	262.21	4403.50	5302.31	2203	76	59	2338	23	8	26	3	2					3									56

## Duty performed by Company No. 2, from March 1, 1900, to March 1, 1901.

Months.	Alarms responded to.						Hours on duty.			Covers spread.				Second section of Company calls.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
	Box.	Still.	Automatic.		Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fires.	Extra at Fires.	Watching after Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	1st Alarms.					2d Al's.					Telephone Calls.	Messenger Calls.	Covering when both sections of a co. are at a fire.	Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous days.	Protecting Roofs.	Totals.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			Wagons responded.	Stall.													When 1st out-section is at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
March, 1900	41	5	2	42	6	48		H. M.	H. M.	H. M.	105.41	172	14		186	9		1	5		1	2	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</



# Duty performed by Company No. 3, from March 1, 1900, to March 1, 1901.

Months.		Alarms responded to.						Hours on Duty.				Covers spread.				Second section of Company calls.										Totals.						
		Box.	Still.	Automatic.	Wagons responded.	Callmen responded.	Total Alarms.	Sprinkler calls or operated.	At Fire.	Extra at Fires.	Watching after Fires.	Totals.	On Goods.	On Roofs.	Protecting Goods from Storms.	Totals.	Extinguishers used.	When 1st out section is at a fire.	When all other sections are at a fire.	When covering a company district.	Second Alarms.	With 2d section wagon during daytime.	Telephone Calls.	Messenger Calls.	Covering when both sections of a co are at a fire.		Reporting at a fire during the daytime A. Force.	Auxiliary Force retained on duty during daytime.	Auxiliary Force on duty extra hazardous days.	Protecting Roofs.		
March, 1900		30	2		27	6	32		H. M. 35.03	H. M. 1.38	H. M. 36.45	H. M. 73.26	12			12	4	2													4	6
April,		49	1		38	14	50		39 14	1.40	2.50	43.44	18	7		25		1		2			1								1	7
May,		30	2		27	6	32		29 58	3.03	23.05	56.03	14	10		24	4	1													1	2
June,		43	4	2	42	9	49		43.54	6.55	7.15	58.04	38	14		52	2	1		1											2	4
July,		66	3		54	18	69		62.33	3.37	34.25	100.35	54	11		65	2	6		3			1								1	11
Aug.,		33	2		30	6	35		41.11	3.39	93.15	137.56	32	10		42		1		1											3	5
Sept.,		38			30	9	38		40.27	3.00	91.40	135.07	15	4		19	3	2													2	5
Oct.,		23	5		21	6	28		23.20	1.00	9.40	34.00	6	4		10	1															5
Nov.,		26	5	1	26	8	32		24.20		12.25	36.45			1	1	3	1		1											3	5
Dec.,		42	1	2	40	8	45		66.33	2.58	119.05	188.36	7			7	4														5	6
Jan., 1901		46	2		39	9	48		48.26	1.01	66.45	116.12	21	4		25	3	3		2											2	8
Feb.,		32	7		29	9	39		38.08		55.25	93.33	13	9		22	2	1		3											5	10
Totals		458	34	5	403	103	497	2	493.07	28.19	552.35	1074.01	230	74		304	28	19		9	10		2							29	69	

## OFFICE OF SECRETARY-TREASURER,

40 PURCHASE STREET,

BOSTON, MARCH 1, 1901.

TO THE PRESIDENT AND DIRECTORS:

*Gentlemen.* — The amount of insurance involved, together with the fire losses sustained by the insurance companies from Jan. 1, 1900, to Dec. 31, inclusive, is as follows:

Insurance on buildings . . . . .	\$11,317,560.01
Loss on buildings . . . . .	399,425.62
Insurance on contents . . . . .	6,715,581.00
Loss on contents . . . . .	972,158.44
Insurance on marine risks . . . . .	
Loss on marine risks . . . . .	
Insurance on rents . . . . .	208,750.00
Loss on rents . . . Partially settled	47,154.74
Sprinkler insurance . . . . .	150,000.00
Sprinkler loss . . . Partially settled	1,668.24

## CAUSES OF FIRES AND ALARMS.

MARCH 1, 1900, TO FEB. 28, 1901, INCLUSIVE.

Ashes in wooden receptacles, hot . . . . .	32
Buildings, defective . . . . .	39
Causes not otherwise enumerated . . . . .	344
Combustion spontaneous . . . . .	45
Electricity . . . . .	47
Fire works . . . . .	47
Gas . . . . .	92
Incendiary (supposed) . . . . .	62
Kerosene-oil . . . . .	177
Matches . . . . .	281
Needless . . . . .	166
Overheating . . . . .	72
Sparks . . . . .	139
Unknown . . . . .	177
Vapors igniting . . . . .	23
Water pipes attempt to thaw . . . . .	29

1,772

## MONTHLY STATEMENT

Of Alarms of Fires, Covers Spread, Extinguishers Used, Fire, Watch, and Extra Duty Performed for the Year Ending March 1, 1901.

Months	Alarms.							Covers.		Extinguishers used.	Fire Duty.		Watch Duty.		Extra Duty.		
	Bell.	Still.	Automatic.	Ext. by oct.	Total.	Sprinklers operated on fires.	Sprinkler breaks and leaks.	Covers.	Roof.		Hours.	Minutes.	Hours.	Minutes.	Hours.	Minutes.	Extra covers.
March, 1900	95	35	3		133	2	4	497	15	16	121	17	586	44	71	42	22
April, "	108	22	6	3	139	2	7	154	14	2	96	24	677	13	11	46	5
May, "	87	24	6	1	118			410	29	9	90	22	367	57	23	24	
June, "	129	50	9		188	1	5	270	21	9	128	37	334	27	40	16	34
July, "	147	43	13	2	205	1	3	317	18	5	158	52	402	16	18	32	
August, "	83	30	12	2	127	1	12	371	34	9	118	42	478	45	54	27	
Sept., "	92	21	6	1	120	1	3	143	12	12	95	40	390	43	12	38	
Oct., "	87	22	10	3	122		12	140	13	3	89		353	20	7	06	
Nov., "	90	30	10		130			220	37	5	88	06	451	00	43	07	8
Dec., "	127	36	12	2	177			474	8	9	95	30	1180	50	46	38	
Jan., 1901	113	43	10	2	168			356	23	11	128	38	819	44	22	33	
Feb., "	96	38	8	3	145			756	40	11	115	26	725	10	40	19	
	1254	394	105	19	1772	8	31	4108	264	101	1326	34	6768	15	392	28	69

Comparison of Fires, Covers Spread, Fire and Watch Duty performed for twenty-one years, each year commencing March 1, and ending the last day of February.

Years.	Fires.	Covers Spread.	Fire Duty.		Watch Duty.	
			Hrs.	Min.	Hrs.	Min.
1880	587	1,596	561	10	886	30
1881	521	1,364	670	00	1,508	30
1882	510	1,910	692	40	1,432	15
1883	648	2,948	966	50	2,479	30
1884	648	2,338	622	55	3,433	45
1885	669	2,361	662	55	3,292	10
1886	662	1,572	525	55	1,472	50
1887	798	1,638	648	55	2,486	30
1888	819	2,292	668	50	2,291	20
1889	820	1,879	615	49	3,986	40
1890	922	1,819	674	10	2,567	05
1891	1,015	2,683	820	05	2,611	30
1892	1,242	2,722	1,061	00	5,554	30
1893	1,189	3,455	1,155	45	5,179	15
1894	1,276	2,730	967	40	5,686	
1895	1,296	2,462	997	45	4,964	45
1896	1,310	2,712	1,075	36	3,557	39
1897	1,527	2,551	1,097	03	5,047	38
1898	1,505	2,616	1 193	48	4,976	43
1899	1,793	3,786	1,695	14	8,237	39
1900	1,772	4,128	1,326	34	6,768	15

# MONTHLY STATEMENT

Of Insurance and Loss on Buildings, Contents, Rents, and Marine, for the year ending March 1, 1901.

Months.	Buildings.			Contents.			Losses not Insured.			Total.			Rents.			Marine.			Loss.
	Insurance.	Loss.	Insurance.	Insurance.	Loss.	Buildings.	Contents.	Buildings.	Contents.	Insurance.	Loss.	Insurance.	Insurance.	Loss.	Insurance.	Loss.	Insurance.	Loss.	
March, '00	\$ 894,714.08	\$ 58,713.78	\$1,475,525.00	\$135,564.16	\$ 8,475.00	\$ 7,469.99	\$ 2,370,239.08	\$210,222.93	\$ 6,000.00	\$1,023.37	\$ 33.65	\$20,000.00			\$20,000.00	\$ 33.65	\$20,000.00		\$ 33.65
April,	1,129,914.00	23,330.58	118,650.00	12,263.48	430.00	1,070.88	1,248,564.00	37,094.94	10,000.00	15.00	639.23	5,000.00			5,000.00	639.23	5,000.00		639.23
May,	1,278,708.33	36,959.29	566,100.00	39,815.72	277.00	3,384.00	1,844,808.33	155,170.81	65,500.00	6,942.54	91.34	20,000.00			20,000.00	91.34	20,000.00		91.34
June,	678,000.00	23,895.13	243,693.00	156,439.36	750.00	2,595.45	921,093.00	408,364.73	16,000.00	3,159.98	25.00	50,000.00			50,000.00	25.00	50,000.00		25.00
July,	852,720.00	42,683.09	478,125.00	156,439.36	38,081.00	171,161.38	1,330,845.60	121,378.31	51,000.00	3,451.88	556.44	30,000.00			30,000.00	556.44	30,000.00		556.44
Aug.,	697,464.00	35,756.54	357,390.00	49,435.81	1,636.00	5,231.77	1,054,854.00	95,212.63	11,000.00	1,164.38	129.18	10,000.00			10,000.00	129.18	10,000.00		129.18
Sept.,	568,119.43	38,859.05	480,748.00	49,435.81	2,656.65	292.75	725,552.25	49,671.04	10,000.00	1,164.38									
Oct.,	1,332,200.00	14,558.43	472,700.00	28,528.69	262.75	822.00	2,555,825.00	269,091.64	7,400.00	1,164.38									
Nov.,	536,477.25	20,037.60	189,075.00	92,675.00	144.25	2,502.37	1,217,511.00	155,144.27	22,000.00	3,018.73									
Dec.,	1,603,150.00	62,437.30	438,350.00	93,617.19	5.00	1,392.36	1,773,943.06	138,638.58											
Jan., 1901	779,161.00	* 60,123.72	629,558.00	90,526.81	295.00	2,564.29													
Feb.,	1,144,345.00	* 45,242.48																	
	\$11,484,973.09	\$492,622.99	\$6,402,629.00	\$1,043,194.91	\$56,135.15	\$209,107.21	\$17,887,002.69	\$1,771,060.26	\$198,900.00	\$18,883.55	\$2,000.00	\$156,000.00			\$2,000.00	\$156,000.00			\$1,558.85

\*Unsettled losses are estimated.

†Not all settled.

‡Partially settled.

## Comparison of Insurance and Losses for Twenty Years, each year commencing March 1st, and ending the last day of February.

Year.	Insurance.	Total Loss.	Loss not insured.
1880	\$6,009,756.00	\$1,056,408.00	
1881	3,801,564.11	551,088.82	\$ 56,197.83
1882	5,200,049.83	940,073.69	172,401.59
1883	6,972,141.29	1,100,381.81	163,100.05
1884	6,933,012.24	1,256,944.74	123,389.95
1885	6,371,291.77	1,167,835.28	148,422.58
1886	4,194,491.11	905,080.68	281,344.66
1887	6,440,032.21	734,737.21	150,187.90
1888	7,490,420.52	1,080,217.96	112,338.37
1889	13,014,984.37	5,078,142.18	814,056.39
1890	7,730,043.60	787,577.27	57,404.05
1891	10,109,612.58	1,582,932.14	128,258.03
1892	10,977,022.67	2,293,235.98	150,096.59
1893	15,024,654.12	3,953,121.69	400,126.00
1894	10,694,069.25	1,431,266.25	226,882.22
1895	10,615,072.81	1,291,271.32	117,358.42
1896	12,606,268.17	1,263,533.96	89,285.46
1897	12,356,417.02	390,392.34	76,253.80
1898	14,102,311.34	1,445,434.37	70,682.61
1899	18,075,199.58	1,706,906.57	191,611.19
1900	17,887,602.09	1,771,060.26	265,242.26





## CLASSIFICATION OF COVERS SPREAD.

80 Fires of 1 Cover each .	80	3 Fires of 28 Covers each .	84
45 " " 2 Covers " .	90	1 " " 31 " " .	31
32 " " 3 " " .	96	2 " " 32 " " .	64
21 " " 4 " " .	84	1 " " 36 " " .	36
20 " " 5 " " .	100	2 " " 42 " " .	84
11 " " 6 " " .	66	1 " " 47 " " .	47
7 " " 7 " " .	49	2 " " 48 " " .	96
9 " " 8 " " .	72	2 " " 52 " " .	104
4 " " 9 " " .	36	1 " " 56 " " .	56
6 " " 10 " " .	60	1 " " 64 " " .	64
2 " " 11 " " .	22	2 " " 68 " " .	136
6 " " 12 " " .	72	1 " " 73 " " .	73
3 " " 13 " " .	39	1 " " 74 " " .	74
7 " " 14 " " .	98	2 " " 76 " " .	152
2 " " 15 " " .	30	2 " " 80 " " .	160
2 " " 16 " " .	32	1 " " 83 " " .	83
3 " " 17 " " .	51	1 " " 95 " " .	95
1 " " 19 " " .	19	1 " " 97 " " .	97
2 " " 20 " " .	40	1 " " 101 " " .	101
4 " " 21 " " .	84	1 " " 148 " " .	148
5 " " 23 " " .	115	1 " " 154 " " .	154
1 " " 24 " " .	24	1 " " 168 " " .	168
2 " " 25 " " .	50	1 " " 255 " " .	255
1 " " 26 " " .	26	1 " " 274 " " .	274
1 " " 27 " " .	27		
Total fires . . . . .	310	Total covers .	4108
310 Fires, 4108 Covers. Averages, 13.25			

## COVERS.

## STOCK COVERS.

On hand last report . . . . .	597
Condemned . . . . .	14
Turned over to roof covers . . . . .	1
Total stock covers . . . . .	582

## ROOF COVERS.

On hand last report . . . . .	18
Received from stock covers . . . . .	1
Condemned . . . . .	5
Total roof covers . . . . .	14
Total covers on hand March 1, 1901 . . . . .	596

## GRADE OF LOSSES.

Grade of Losses for the year 1900, commencing January 1st, and ending December 31st.

634	Fires with no loss.	Aggregate.	Average.
	" " loss under \$100 . . . . .	\$21,316.69	\$ 36.50
584	" " " from \$100 to \$500 . . . . .	72,201.87	229 22
315	" " " " \$500 to \$1,000 . . . . .	52,636.26	683 58
77	" " " " \$1,000 to \$5,000 . . . . .	241,791.37	2,031.09
119	" " " " \$5,000 to \$10,000 . . . . .	176,444.40	7,057.78
25	" " " " \$10,000 to \$15,000 . . . . .	73,967 23	12,327.87
6			
	Over \$15,000 as follows:		
	Fire Jan. 25, 25 Avon St., H. Crine . . . . .	27,465.23	
1	" Feb. 27, 13 Federal Ct., Parker Holmes & Co. & others . . . . .	26,151 29	
1	" Mar. 8, Rutherford Ave., Railroad & hay fire . . . . .	31,248 97	
1	" " 11, 209 North St., W. G. Bell Co. & others . . . . .	15,857.05	
1	" " 11, 67 Batterymarch St. . . . .	22,280 75	
1	" " 26, 232 Congress St., Carl H. Heintzeman & others . . . . .	68,820.40	
1	" May 31, 605 Washington St., Pitts, Kimball & Co. . . . .	126,417.82	
1	" June 13, 91 Commercial St., Fearing, Hall & Whitten & others . . . . .	29,222.18	
1	" July 3, 506 Albany St., Leatherbee & Co. . . . .	115,800 24	
1	" " 6, 26 Eustis St., Wm. Curtis Sons Co. . . . .	23,155.42	
1	" " 19, Navy Yard, Government Bldgs. & others . . . . .	194,269.50	
1	" Aug. 14, 15 India St., T. Gay & Co. . . . .	31,478.76	
1	" " 23, Post Office Sq., Stone, Webster & Co. & others . . . . .	25,078 32	
1	" Sept. 15, 580 Albany St., Bradford & Co. . . . .	41,444.97	
1	" " 22, 74 Purchase St., Dalton, Ingersoll Co. & others . . . . .	18,261.50	
1	" Oct. 26, 27 Court St., Abrams & Sons & others . . . . .	39,018.80	
1	" Dec. 5, 194 Portland St., Heywood Bros. & Wakefield Co. . . . .	93,556.21	
1	" " 18, 82 Canal St., Freedman & Bro., & others . . . . .	75,876.38	
1	" " 26, 151 Tremont St., Arthur O. Chartier . . . . .	30,014.83	
1779		\$1,674,776.44	54,548.35

The 1145 fires where there was a loss, the average was \$1,462.68.

Comparison of total fires, total fires with loss, total loss, average loss of total fires, and average loss of fires with loss, for twenty years, commencing January 1, 1881

Year.	Total Fires.	Total Fires with Loss.	Total Loss.	Average Loss of Total Fires.	Average Loss of Total Fires with Loss.
1881	558	344	\$ 467,105.82	\$ 837.10	\$1,357.86
1882	502	329	958,835.88	1,910.03	2,914.39
1883	641	371	1,132,982.18	1,767.52	3,053.86
1884	633	398	1,101,253.60	1,739.73	2,766.96
1885	655	397	1,232,255.05	1,881.30	3,103.91
1886	687	448	1,089,196.05	1,585.43	2,431.24
1887	754	460	690,454.11	915.72	1,500.98
1888	834	554	1,031,676.72	1,237.02	1,862.23
1889	788	494	4 819,446.67	6,103.15	9,756 84
1890	933	502	1,088,887.29	1,167.08	1,937.52
1891	1,012	606	1,511,674.51	1,542.53	2,494.51
1892	1,196	715	846,395.12	708.70	1,183.76
1893	1,233	684	5,024,765.04	2,654.39	7,346.14
1894	1,233	714	1,726,627.56	1,400.35	2,418.24
1895	1,234	719	1,195,343.28	968.62	1,662.41
1896	1,397	813	1 367,165.92	978.64	1,681.63
1897	1,435	957	861,203.64	600.15	899.86
1898	1,499	967	1,415 884.93	944 55	1,464.20
1899	1,768	1,108	1,699,900 57	961.43	1,534.20
1900	1,779	1,145	1,674,776.44	941.42	1,462.68
Total	20,771	12,785	\$30,935,830.38	\$1,489.37	\$2,420.47



## CAUSES OF ALARMS AND FIRES.

(March 1, 1900 to March 1, 1901.)

Alarms false . . . . .	31
"    needless . . . . .	135
Alcohol lamps . . . . .	3
Ashes hot in wooden receptacles . . . . .	32
Attempt to thaw water pipes . . . . .	29
Assistance called for . . . . .	3
Back draft . . . . .	1
Burning sulphur . . . . .	1
Boiling over of fat . . . . .	17
"    "    oil . . . . .	1
"    "    tar . . . . .	9
"    "    wax . . . . .	2
Bon fires . . . . .	7
Boys, set by . . . . .	89
Brush fires . . . . .	13
Candles lighted . . . . .	40
Chimney fires . . . . .	17
Cigars lighted . . . . .	18
Cigarettes . . . . .	14
Chemicals . . . . .	1
Defective chimneys . . . . .	18
"    constructions . . . . .	10
"    furnaces . . . . .	1
"    flues . . . . .	10
"    stove pipes . . . . .	2
Electric light wires . . . . .	45
"    motors . . . . .	2
Explosions . . . . .	5
Fire crackers . . . . .	46
"    works . . . . .	1
Friction of machinery . . . . .	2
Fumigating . . . . .	1
Gas-jets lighted . . . . .	31
"    and curtains . . . . .	38
Gas leaks . . . . .	9
"    stoves . . . . .	13
"    metres . . . . .	1
Gasoline stoves . . . . .	6
"    torches or furnaces . . . . .	4
Grass fires . . . . .	13
Hot coals . . . . .	4
Incendiary . . . . .	44
"    supposed . . . . .	18

Kerosene-oil explosions . . . . .	12
"    lamps . . . . .	38
"    "    upsetting or breaking . . . . .	62
"    "    explosions of . . . . .	18
"    stoves . . . . .	47
Lightning . . . . .	4
Matches, careless use of . . . . .	193
"    and children . . . . .	78
"    "    rats . . . . .	10
Naphtha lamps . . . . .	1
Overheated flues . . . . .	1
"    furnaces . . . . .	8
"    iron . . . . .	2
"    ovens . . . . .	2
"    ranges . . . . .	2
"    stoves . . . . .	40
"    smoke stacks . . . . .	3
"    steam pipes . . . . .	5
"    stove pipes . . . . .	8
Painters' torches . . . . .	2
Picker machines . . . . .	1
Rekindling of fires . . . . .	5
Roofer's furnace . . . . .	1
Rubbish . . . . .	18
Smelters . . . . .	1
Smoky chimneys . . . . .	17
"    furnaces . . . . .	4
"    stoves . . . . .	5
Soot burning . . . . .	6
Steam escaping . . . . .	6
Sparks from chimneys . . . . .	29
"    "    engines . . . . .	3
"    "    forges . . . . .	10
"    "    fire engines . . . . .	2
"    "    fire boxes . . . . .	6
"    "    furnaces . . . . .	5
"    "    flues . . . . .	2
"    "    locomotives . . . . .	19
"    "    smokers' pipes . . . . .	49
"    "    stoves . . . . .	14
Spontaneous combustion . . . . .	45
Unknown . . . . .	177
Vapor from alcohol . . . . .	4
"    "    benzine . . . . .	1
"    "    gasoline . . . . .	6
"    "    naphtha . . . . .	8
"    "    turpentine . . . . .	1
Water leaks . . . . .	3
<hr/>	
Total . . . . .	1772
No fire (Sprinkler Calls) . . . . .	56
Marine (not insured) . . . . .	1

Statement of the Insurance; loss paid by companies; per cent. of insurance paid in losses by companies; loss not insured; total loss, and per cent. of total loss not insured on buildings and contents; for twenty years, each year commencing January 1, and ending December 31; also the total insurance; total loss paid by companies; per cent. of insurance paid in losses by companies; total loss, and per cent. of total loss not insured for twenty years.

## BUILDINGS

Year	Insurance.	Loss paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$2,307,064.38	\$115,612.03	5.01	\$14,888.01	\$130,500.04	11.40
1882	2,405,529.94	159,246.42	6.62	26,271.67	185,518.09	14.16
1883	3,856,784.88	334,981.10	8.68	23,478.10	358,459.20	7.00
1884	3,227,819.93	189,168.83	5.86	28,022.40	217,191.23	14.81
1885	3,070,687.86	221,801.75	7.22	24,240.96	246,042.71	9.85
1886	2,733,588.56	275,269.13	10.06	136,800.13	412,069.26	33.19
1887	3,290,462.47	171,871.93	5.22	68,206.29	240,078.22	28.41
1888	4,492,935.42	227,933.85	5.07	12,302.39	240,236.25	5.12
1889	4,583,384.25	911,382.45	19.88	330,747.20	1,242,129.65	26.62
1890	5,016,807.94	400,263.07	7.97	51,162.02	451,425.09	11.35
1891	5,377,350.42	315,821.99	5.89	26,496.70	342,318.69	7.74
1892	5,241,193.10	228,817.43	4.37	33,133.07	261,950.50	12.65
1893	8,047,857.57	1,289,054.22	16.02	115,994.73	1,405,048.95	8.26
1894	6,849,379.33	636,064.32	9.30	236,195.41	873,159.73	27.05
1895	6,657,272.17	453,404.36	6.51	44,048.45	477,452.81	9.22
1896	9,154,604.15	589,103.88	6.43	34,599.75	623,703.63	5.54
1897	8,637,104.31	281,515.16	3.26	21,091.21	302,606.37	6.96
1898	7,975,555.55	438,316.94	5.49	14,315.34	452,632.28	3.16
1899	12,021,964.00	590,745.17	4.91	45,196.71	635,941.88	7.11
1900	11,317,560.01	435,426.12	3.85	57,230.15	492,656.27	11.62
Tot.	\$116,244,906.24	\$8,246,700.15	7.09	\$1,344,420.69	\$9,591,120.85	14.02

## CONTENTS.

Year	Insurance.	Loss Paid by Companies.	Per cent. of Insurance Paid in Losses by Co.'s	Loss not Insured.	Total Loss.	Per cent. of Total Loss not Insured.
1881	\$1,598,163.23	\$304,792.58	19.07	\$31,813.20	\$336,605.78	9.45
1882	2,475,362.73	622,795.39	25.16	150,522.40	773,317.79	19.46
1883	2,742,400.07	596,324.39	21.74	178,198.59	774,522.98	23.00
1884	4,244,172.75	781,134.46	18.40	102,927.91	884,062.37	11.64
1885	2,992,044.37	900,648.20	30.10	85,564.14	986,212.34	8.67
1886	2,270,318.15	499,804.78	22.01	177,322.01	677,126.79	26.18
1887	1,886,074.17	369,067.09	19.57	81,308.80	450,375.89	18.05
1888	3,573,802.81	715,197.05	20.01	76,243.41	791,440.47	9.63
1889	7,153,078.90	3,149,636.38	44.03	427,680.64	3,577,317.02	11.95
1890	3,162,556.68	560,584.18	17.72	76,878.02	637,462.20	12.06
1891	5,090,526.45	1,073,055.44	21.07	96,300.38	1,169,355.82	8.23
1892	3,239,858.48	503,131.35	15.53	81,313.27	584,444.62	13.93
1893	10,332,586.55	3,373,037.42	32.64	246,678.67	3,619,716.09	6.82
1894	3,893,242.42	669,857.10	17.25	183,610.73	853,467.83	21.51
1895	3,365,799.34	641,073.78	19.04	76,816.69	717,890.47	10.70
1896	4,060,722.82	674,830.31	16.61	68,631.98	743,462.29	9.23
1897	3,597,843.02	515,030.92	14.31	43,566.35	558,597.27	7.79
1898	4,301,196.37	891,288.56	20.72	71,964.09	963,252.65	7.47
1899	7,449,704.35	910,218.67	12.22	153,739.99	1,063,958.66	14.45
1900	6,715,581.00	972,158.44	14.47	209,961.73	1,182,120.17	12.23
Tot.	\$84,145,043.66	\$18,723,666.49	22.25	\$2,621,043.00	\$21,344,709.50	12.22

## TOTAL.

Year.	Total Insurance on Buildings and Contents.	Total Loss on Buildings and Contents paid by Companies.	Per cent. of total Insurance Paid in Losses by Co.'s	Total Loss on Buildings and Contents.	Per cent. of Total Loss to Insurance
1881	\$3,905,227.61	\$420,404.61	16.76	\$467,105.82	11.96
1882	4,880,892.67	782,041.81	16.02	958,835.88	19.64
1883	6,599,193.95	931,305.49	14.11	1,132,982.18	17.16
1884	7,471,992.68	970,303.29	12.98	1,101,253.60	14.73
1885	6,062,732.23	1,122,449.95	18.51	1,232,255.05	20.32
1886	5,003,906.71	775,073.91	15.48	1,089,196.05	21.76
1887	5,176,536.64	540,939.02	10.45	690,454.11	13.34
1888	8,066,738.23	943,130.90	11.69	1,031,676.72	12.79
1889	11,736,463.15	4,061,018.83	34.60	4,819,446.67	41.06
1890	8,179,364.62	960,847.25	11.74	1,088,887.29	13.31
1891	10,447,876.87	1,388,877.43	13.29	1,511,674.51	14.47
1892	8,481,051.58	731,948.78	8.62	846,395.12	9.97
1893	18,380,444.12	4,662,091.64	25.36	5,024,765.04	27.32
1894	10,742,621.75	1,306,821.42	12.16	1,726,627.56	16.05
1895	10,023,071.51	1,074,478.14	10.72	1,195,343.28	11.92
1896	13,215,326.97	1,263,934.19	9.56	1,367,165.92	10.35
1897	12,234,947.33	796,546.08	6.51	861,203.64	7.04
1898	12,276,751.92	1,329,605.50	10.83	1,415,884.93	11.53
1899	19,471,668.35	1,500,963.84	7.71	1,699,900.57	7.71
1900	18,033,141.01	1,407,584.56	7.80	1,674,776.44	9.28
Tot.	\$200,389,949.90	\$26,970,366.64	13.45	\$30,935,830.38	15.44

Respectfully submitted,  
EDWARD SPAULDING, *Secretary.*

# STATISTICS OF ALARMS AND FIRES FOR TEN YEARS.

Number of Buildings in the City, &c.										Number of Alarms and Fires.										
Year	Area Sq. Mile.	Popu- lation Census 1900.	Brick, &c., Buildings last Report.	New Brick Build- ings Completed.	Brick Buildings Totally Destroyed.	Total Brick Build- ings.	Frame Buildings last Report.	Frame Buildings Completed (New).	Frame Buildings Totally Destroyed.	Grand Total Brick and Frame Buildings.	Total Alarms.	Brick, Iron, &c.	Frame.	Outside.	Total Fires.	Confined to floor originated.	Confined to Build- ing originated.	Extended to Ad- joining Property.	Adjoining Prop'y.	
1891	37 01	448,477	22,700	329	1	22,700	43,800	1964	1	43,800	66,500	980	424	389	87	900	730	780	32	1
1892	"	"	23,028	252	13	23,028	45,763	1611	3	47,371	68,191	1196	510	405	89	1094	955	966	38	1
1893	"	"	23,028	398	12	23,267	47,371	1717	100	48,988	70,638	1233	500	403	264	1167	761	876	24	3
1894	"	"	23,267	328	11	23,653	48,988	1445	11	50,442	72,641	1253	477	460	115	1052	777	897	37	3
1895	"	"	23,653	337	25	24,292	50,442	1498	67	51,873	76,165	1397	546	485	96	1024	772	886	40	2
1896	"	496,920	24,292	364	68	24,588	51,873	2002	121	53,754	78,342	1438	613	545	101	1132	831	986	34	11
1897	"	"	24,292	395	*84	24,839	53,754	1262	*62	54,754	80,939	1499	591	576	106	1281	983	1107	39	9
1898	"	500,000	24,839	317	*16	25,200	54,954	990	*205	55,739	82,725	1768	748	646	174	1568	116	1232	36	6
1899	"	"	25,200	614	*18	25,796	55,739	1238	*48	56,929	86,929	1779	734	634	192	1560	113	1290	48	18
1900	"	750,892	25,200	614	*18	25,796	55,739	1238	*48	56,929	86,929	1779	734	634	192	1560	113	1290	47	31

Marine Fire Loss and Insurance.				Rents, Fire Loss and Ins.			
Total Loss thereon.	Total Insur- ance there- on.	Loss Per Capita.	Percent. of Fires confined to Build- ing.	Total Insur- ance there- on	Total Loss thereon.	Total Insur- ance there- on.	Total Insur- ance there- on.
\$1,511,674.51	\$10,447,876.87	\$1,388,877.43	.86	\$3,000.00	\$1,208.12	\$1,208.12	\$56,100.00
846,395.12	8,481,051.58	731,948.78	.88	58,057.57	25,057.81	25,057.81	98,000.00
5,024,765.04	18,380,444.12	4,662,091.64	.74	505,500.00	52,619.32	50,559.32	317,591.00
1,726,637.56	10,742,621.75	1,306,821.42	.85	4,000.00	350.00	350.00	30,940.00
1,195,343.28	1,074,478.14	2.35	.86	58,799.00	56,842.82	56,742.82	68,350.00
1,367,165.92	13,215,326.97	1,263,934.19	.87	239,465.00	13,752.07	13,652.07	128,700.00
861,203.64	12,234,947.33	796,546.08	.86	10,000.00	1,161.48	961.48	117,000.00
1,415,884.93	12,276,751.92	1,329,605.50	.96	1,150,500.00	47,350.00	47,000.00	44,850.00
1,699,900.57	19,471,668.36	1,500,963.84	.85	.....	.....	.....	99,600.00
1,674,776.44	18,033,141.01	1,407,584.56	.83	.....	.....	.....	203,750.00

\*20 frame buildings were totally destroyed by fire, 18 brick and 28 frame buildings were demolished.

†Not insured.

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†Not insured.

## MEDICAL EXAMINER'S REPORT.

SAMUEL ABBOTT, JR.,

*Supt. Boston Protective Department.*

*Dear Sir:* As is customary at this time of the year, I forward the report of the work done by your Medical Officer for the year ending March 1, 1901, and herewith respectfully submit the same.

Number of applications for appointment . . . . .	19
Number of applications for promotion . . . . .	21
Number of visits made to sick members . . . . .	63
Number of visits made to injured members . . . . .	54
Number of attending physicians' reports examined . . . . .	39
Number of special reports . . . . .	3
Number of certificates of health to return to duty . . . . .	29

The work according to months is as follows:

Month	App.	Prom.	Sick	Injured	Special	Rejections
March			1	1		
April			2	2		
May		3	2	2		
June	2		2			
July				1		
August	1		1	3	1	
September	1	4	1		1	
October	5	3	1	2		
November	2	6	2			
December	3	3	5	2		2
January	4	2	3	2		

Of those applying for promotion I am glad to say that it was not necessary either to postpone or reject any; of those applying for membership would say that four were postponed on account of temporary physical indisposition; two were rejected; one on account of physical pre-disposition to disease, and the other because of an exceedingly bad family history and a physical condition which would probably eventuate, if exposed to the work which our department calls for, in a trouble similar to that to which several members of his family have already succumbed.

On investigation the causes for sick leave were found to be as follows:

La grippe . . . . .	5
Mental depression . . . . .	2
Muscular rheumatism . . . . .	2
Acute indigestion . . . . .	4
Acute tonsilitis . . . . .	2
Abscess of tonsil . . . . .	1
Simple fever . . . . .	1
Dysentery . . . . .	1
Malaria . . . . .	1
Acute rheumatism . . . . .	1
Pleurisy . . . . .	2
Consumption . . . . .	1
Typhoid fever . . . . .	1



The causes for absence on account of injury were as follows:

Contusion of thigh . . . . .	2
Strain of knee . . . . .	3
Strain of wrist . . . . .	1
Lacerated wound . . . . .	1
Punctured wound of foot . . . . .	1
Lacerated wound of scalp . . . . .	1
Simple febricula . . . . .	1
Contusion of back . . . . .	3
Lacerated wound of hand . . . . .	1
Contusion of chest . . . . .	2
Dislocation of thumb . . . . .	1
Punctured wound of hand . . . . .	1
Contusion of ankle . . . . .	3
Contusion of leg . . . . .	1
Sprain of ankle . . . . .	1

It may be interesting to note that eleven of those who reported themselves as sick or injured were found to be in a physical condition which admitted of their being recommended to report for duty. In several instances during the year those who have been sick or injured have made application to return to duty, but their physical condition has not seemed, in the opinion of your Medical Officer, to be such as to warrant their return with safety to themselves and the department.

#### SPECIAL REPORTS.

At the request of the Superintendent, Cornelius T. Lynch, who was a member of this department for some years, was visited, and special reports forwarded concerning his condition and recommendations in regard to the same. It was found that he had serious lung trouble, following typhoid fever, from which he was a sufferer during the summer, and it became evident that his condition was one of consumption, from which he died early in the fall.

Allow me to testify my conviction that the department has lost in this instance a faithful, honest, hard-working member, and one who always, so far as he could see it, did his duty.

A special report was also requested in the case of E. A. Whalen, who, I am glad to say, was found to be in condition to report for duty.

WM. F. TEMPLE., M. D.,  
*Medical Officer Boston Protective Department.*

## EXHIBIT A.

Review of Disticts where alarms were given, for twenty years, from March 1st to March 1st, of each year

YEARS.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Total	Per Cent.
City Proper	288	285	347	362	349	360	412	464	440	487	504	681	626	595	652	663	788	772	905	905	10,885	52.04
Roxbury	49	53	63	70	65	82	87	79	74	70	106	117	120	161	178	174	269	191	276	264	2,478	11.83
South Boston	29	29	50	51	42	56	73	79	84	87	98	117	58	114	122	114	129	114	144	131	1,721	8.21
Charlestown	35	41	46	42	48	41	62	57	63	94	104	121	107	118	93	105	109	114	108	136	1,644	7.85
East Boston	45	50	51	44	47	51	67	51	61	51	57	63	75	76	73	66	68	103	102	95	1,296	6.18
Dorchester	25	27	38	47	39	26	30	31	31	61	54	60	60	118	81	84	99	100	129	120	1,260	6.01
West Roxbury	33	17	33	12	45	24	38	34	44	41	63	55	22	68	65	62	75	62	88	91	972	4.65
Brighton	13	5	18	16	32	21	27	23	18	28	24	28	121	26	28	41	46	46	37	37	635	3.03
Cambridge	-	-	1	2	1	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	-	-
Chelsea	-	2	1	1	1	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Brookline	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-
Everett	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Harbor	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	1	-	1	-	-	-
Hyde Park	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-
Milton	-	1	-	-	-	1	-	-	1	1	1	-	-	-	1	-	1	-	2	1	-	-
Newton	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerville	-	-	-	1	-	-	-	-	1	1	2	-	-	-	-	-	-	1	-	-	-	-
Watertown	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Alarms	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	1733	1772	20,942	100



## EXHIBIT B.

Review of causes of alarms and fires, for twenty years, from March 1st to March 1st, of each year

CAUSES.		1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Total	Per Ct.	
Ashes wooden receptacles hot		7	9	14	5	9	8	13	21	4	14	11	16	21	11	23	24	19	20	20	32	301	1.43	
Buildings, defective		23	26	21	24	21	23	24	30	24	25	24	33	32	33	41	39	38	49	42	39	611	2.92	
Causes not enumerated		102	81	117	96	129	98	136	122	151	233	308	285	275	263	249	210	230	244	390	344	4043	19.30	
Combustion, spontaneous		17	34	30	18	13	23	29	32	21	34	34	56	32	37	38	50	36	39	63	45	681	3.25	
Electricity		0	0	4	3	3	7	8	8	6	15	10	27	35	35	25	29	48	33	36	47	379	1.81	
Fireworks		7	2	3	13	6	11	39	45	5	12	19	16	26	30	36	32	34	33	55	47	471	2.24	
Gas		28	18	21	20	25	21	23	34	30	37	54	53	53	77	66	69	133	82	72	92	1008	4.81	
Incendiary supposed		48	35	64	57	46	63	44	37	48	22	40	51	32	59	41	59	42	37	39	62	926	4.42	
Kerosene oil		36	39	46	65	85	69	75	87	120	90	109	138	172	134	125	167	193	202	192	177	2321	11.08	
Matches		65	60	94	78	65	102	147	110	110	94	135	150	166	175	179	168	251	211	287	281	2928	13.99	
Needless		53	57	66	72	47	59	59	79	94	46	36	75	74	101	155	175	149	195	168	166	1926	9.19	
Overheating		26	27	26	42	40	39	39	45	40	61	63	58	60	69	81	68	92	67	86	72	1101	5.25	
Sparks		31	27	33	36	34	29	39	40	35	41	44	93	61	78	98	81	83	99	133	139	1254	5.98	
Unknown		65	78	85	94	123	90	107	111	121	188	116	145	140	129	88	117	128	136	186	177	2424	11.57	
Vapors igniting		7	12	11	4	14	13	5	10	10	10	6	7	11	15	24	23	13	32	27	10	23	277	1.32
Water Pipes, attempt to thaw		6	5	13	21	9	7	11	8	1	4	5	35	15	21	28	9	19	31	14	29	291	1.44	
Totals	- - -	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	1793	1772	20,942	100.	

## EXHIBIT C.

Review of hours in duty when alarms were received, for twenty years,  
from March 1st to March 1st, of each year.

		Years.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Total	Per Cent
Day Service.	6 to 7 A.M.	7	10	11	10	11	17	17	16	10	12	16	22	33	28	27	18	27	34	31	39	396	4,907	
	7 " 8 "	13	10	12	21	19	14	25	18	17	33	25	27	28	42	46	29	38	45	38	525			
	8 " 9 "	14	18	20	22	31	22	21	23	37	34	26	32	41	31	44	44	53	61	55	60	689		
	9 " 10 "	23	14	25	23	15	27	25	38	22	30	36	44	49	48	47	42	51	66	49	57	731		
	10 " 11 "	15	24	24	26	34	23	32	26	26	43	36	51	66	48	66	54	67	61	92	77	891		
	11 " 12 noon	23	17	24	28	32	19	26	36	29	37	39	46	42	66	57	50	74	62	73	85	365	19.	
	12 " 1 P.M.	27	24	29	22	29	27	30	33	27	36	36	40	62	61	73	50	63	73	79	64	885		
	1 " 2 "	13	22	23	33	28	23	32	20	29	34	48	63	35	63	61	58	66	69	80	79	879		
	2 " 3 "	18	18	38	27	29	21	35	36	28	38	51	48	42	57	59	69	72	71	94	85	936		
	3 " 4 "	24	16	39	28	28	13	39	41	31	40	46	70	53	66	64	64	66	66	90	82	966		
	4 " 5 "	23	22	31	34	28	8	45	45	42	56	50	87	67	62	81	55	66	72	99	106	1079	28.	
	5 " 6 "	48	25	40	42	45	20	44	53	59	53	74	74	71	60	63	76	90	96	120	110	1263		
6 " 7 "	43	39	46	37	44	49	35	55	55	58	64	90	80	80	83	95	111	92	128	122	1406			
7 " 8 "	30	39	49	50	54	55	63	60	62	57	91	95	80	95	93	105	114	115	121	135	1603			
8 " 9 "	39	35	45	45	42	58	58	67	91	82	88	100	96	78	78	110	127	130	127	1538				
Night Service.	9 " 10 "	32	24	36	49	40	31	56	57	54	62	58	65	71	80	79	90	96	96	110	97	1283	7,710	
	10 " 11 "	38	28	28	40	29	37	39	37	57	48	50	66	58	67	54	76	71	75	85	90	1073		
	11 " 12 Md'n	17	23	31	17	23	26	45	35	42	37	29	50	42	53	52	60	85	46	65	69	847		
	12 " 1 A.M.	24	19	20	20	20	33	33	26	34	25	36	46	45	38	38	32	40	44	49	66	688		
	1 " 2 "	15	23	23	15	27	30	24	32	29	30	25	45	26	35	30	46	47	32	44	51	629		
	2 " 3 "	8	20	21	16	24	26	22	20	21	19	34	24	26	31	23	32	34	28	49	50	528	3,128	
	3 " 4 "	7	17	13	16	12	35	18	29	18	22	23	27	35	30	29	29	37	37	38	27	499		
	4 " 5 "	13	14	10	17	10	28	20	13	14	10	21	30	20	29	25	19	29	24	29	27	462		
	5 " 6 "	7	9	10	10	15	36	14	12	10	17	19	14	18	24	28	22	29	20	38	29	382		
	Totals		521	510	468	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	1793	1772		20,943

## EXHIBIT D.

Review of days of the week when alarms were received, for twenty  
years, from March 1st to March 1st, of each year.

Days.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	Total	Per Ct
Monday	83	65	88	93	85	109	139	113	98	111	130	180	143	179	191	188	253	244	270	277	3039	14.51
Tuesday	73	74	107	89	84	98	98	109	131	150	165	179	201	166	163	180	223	230	319	244	3683	14.7.
Wednesday	76	87	101	98	102	95	113	130	118	122	155	187	199	227	186	188	228	229	256	266	3163	15.10
Thursday	65	52	84	90	98	87	131	115	115	147	186	202	171	198	192	147	204	185	223	275	2917	13.93
Friday	84	74	98	100	109	79	111	123	138	162	139	157	157	180	181	223	203	218	256	226	3018	14.40
Saturday	65	81	88	93	112	103	122	133	120	137	169	189	155	171	223	221	214	203	267	245	3111	14.87
Sunday	75	77	82	85	79	91	84	96	100	93	121	148	163	155	160	163	202	196	202	239	2611	12.47
Totals	521	510	648	648	669	662	798	819	820	922	1015	1242	1189	1276	1296	1310	1527	1505	1793	1772	20,942	100

## EXHIBIT E.

Review of grade of losses for twenty years, commencing January 1st  
and ending December 31st, of each year.

Years	Total Al'm	No Loss	Under \$100	\$100 to \$500	\$500 to \$1000	\$1000 to \$5000	\$5000 to \$10,000	\$10,000 to \$15,000	Over \$15,000	Total Fires with Loss	Average loss to Total fires with loss.
1881	558	214	156	84	32	47	11	7	7	344	\$1,357.86
1882	502	173	124	87	32	54	13	5	14	329	2,914.39
1883	641	270	124	109	30	64	14	14	16	371	3,053.86
1884	633	235	169	93	46	57	14	3	16	398	2,766.96
1885	655	258	167	98	41	62	11	4	14	397	3,103.91
1886	687	239	217	125	39	43	12	3	9	448	2,431.24
1887	754	294	197	115	51	65	16	6	10	460	1,500.98
1888	834	280	262	140	45	72	12	3	20	554	1,862.23
1889	788	294	220	137	46	54	20	5	12	494	9,756.84
1890	933	371	283	140	39	68	15	3	14	562	1,937.52
1891	1012	406	307	130	45	83	16	9	16	603	2,494.51
1892	1196	481	350	185	64	83	14	9	10	715	1,183.76
1893	1233	549	342	161	50	86	22	5	18	684	7,346.14
1894	1233	519	331	202	60	83	16	8	14	714	2,418.21
1895	1234	515	365	180	55	84	15	4	16	719	1,662.41
1896	1397	584	383	221	64	102	22	2	19	813	1,681.63
1897	1435	478	543	229	60	88	17	10	10	957	899.86
1898	1499	532	513	250	76	93	14	6	15	967	1,464.20
1899	1768	690	571	278	91	114	21	8	25	1108	1,534.20
1900	1779	634	584	315	77	119	25	6	19	1145	1,462.68
Totals	20,771	7986	6208	3279	1043	1521	320	120	294	12,785	\$2,420.47
Per Ct.	100	38.44	29.89	15.79	5.02	7.32	1.54	.58	1.42	61.55	











JUL 25 1901

